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Findings from
The National Sample Survey
of Registered Nurses

U.S. Department of Health & Human Services
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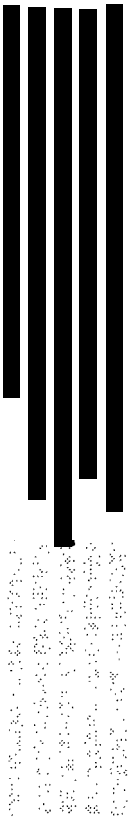

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Evelyn B. Moses
Chief, Nursing Data and Analysis Staff
Division of Nursing

Department of Health and Human Services
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PREFACE

The Division of Nursing is the key Federal focus of nursing education and practice. It provides national leadership to assure an adequate supply and distribution of qualified nursing personnel to meet the health needs of the nation. In support of this responsibility, the Division maintains a comprehensive program of nursing workforce analysis of the current and future supply of and requirements for nursing personnel. The acquisition and presentation of data describing the registered nurse population and its characteristics are an essential part of the Division's program.

The National Sample Survey of Registered Nurses is the nation's most extensive and comprehensive source of statistics on all those with current licenses to practice in the United States whether or not they are employed in nursing. It provides information on the number of registered nurses and their educational background and specialty areas; their employment status including type of employment setting, position level, and salaries; their geographic distribution; and their personal characteristics including gender, racial/ethnic background, age, and family status.

The development of a design for collecting data through sample surveys of registered nurses was initiated by the Division of Nursing in July 1975 in a contract with Westat, Inc. Subsequently, the Division of Nursing has conducted six sample surveys. Reports for five studies, those conducted in September 1977, November 1980 and 1984, and March 1988 and 1992, have been published and made available to all those involved in health care planning and evaluation as well as to the public. This publication is the report of the sixth study conducted in March 1996.

The Research Triangle Institute carried out the data collection for this study through a contract. The report was authored by Ms. Evelyn B. Moses, Chief, Nursing Data and Analysis Staff, Division of Nursing. Dr. Ram Jain, a statistician in the Nursing Data and Analysis Staff, programmed and summarized the data into tables. Ms. Dena Saunders provided secretarial assistance. Dr. Ruth R. Alward provided editorial services.

The Division of Nursing is pleased to make this important information on the country's registered nurse resources available through the report.

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US. Department of Health and Human Services

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CHAPTER I

INTRODUCTION

Since its inception the Division of Nursing has had primary responsibility for the examination of the nation's nurse workforce. The need to determine the workforce characteristics and distribution is basic to this objective. Over the years, the Division has been a major force in the development of study methods and the acquisition of data on the nurse population. To this end the Division of Nursing has worked in concert with other agencies within the Federal government and States, as well as with the nursing organizations.

EARLY REGISTERED NURSE WORKFORCE STUDIES

The first approach to using the licensing mechanism as a basis for a study to determine the number and characteristics of the country's registered nurses (RNs) was carried out in 1949. The American Nurses' Association (ANA) conducted this first Inventory of Registered Nurses.' Data were collected through postcard questionnaires mailed to each registrant on record at the time of the study by the licensing entity in the States and territories that required renewal of registration. In Maryland and Ohio, where renewal of registration was not required, questionnaires were distributed through the State nurses associations and employing agencies. About 62 percent of all the questionnaires sent to the nurses by the States were returned. The number of individuals who had licenses to practice as registered nurses in 1949 was determined through the use of estimating procedures that took account of the nonrespondents and eliminated duplication resulting from nurses having licenses in more than one State.

A study similar to the first inventory was conducted by the ANA in 1951. For this study, questionnaires were enclosed when the States mailed licensed renewal notices to the RNs in the State. About 71 percent of the questionnaires were returned. Thus, the tie-in to license renewal apparently improved the response rate; however, it also extended the time period for data collection since renewal dates vary from State to State. As was the case in the 1949 survey, the number of nurses was determined by means of estimating procedures that accounted for the nonrespondents and the elimination of duplicated licenses.[2]

In the mid-1950s, the ANA promoted the inclusion of a uniform set of questions about the nurse's characteristics on each State's licensing application form. An Inventory of Registered Nurses using this procedure for obtaining the data was initiated in 1956. The length of time it took to include the questions in the licensing process and the limited funds available for compiling and summarizing the data resulted in an extended time frame for both data collection and its analysis.

The summary data for the 1956–58 Inventory of Registered Nurses was published in 1963.[3]

Four succeeding Inventories of Registered Nurses were conducted by the ANA.[4,5,6,7] The Division of Nursing was instrumental in providing Federal financial support to the ANA to help defray the costs of obtaining and processing the data for these studies. The support ensured a more centralized approach to data collection and processing as well as greater use of automated procedures to summarize data.

DEVELOPMENT OF PRESENT STUDY METHOD

A number of fundamental limitations still remained. The tie-m to the licensing mechanism limited the size of the survey instrument and, thus, the amount of data that could be collected. Surveying all the licensees led to processing vast numbers of questionnaires and precluded follow-up for forms not returned, missing data, or ambiguous responses. Only easily interpreted, basic data items could be obtained. The wide variation in renewal dates from State to State led to a lengthy data collection period. It could take as long as three years to present a national picture through analysis of data from all States. Furthermore, the summary data could not be identified with a fixed date.

Concerns about these limitations and the need for a far more comprehensive set of RN workforce data than could be obtained from the Inventories prompted the Division of Nursing to start looking for alternative approaches. The importance of this search was reinforced by the passage of EL. 94-63. Title IX, Part D, Section 951 of that law required the examination of the current and future supply and distribution of and requirements for nurses, within States and for the country as a whole. It also called for continually surveying and gathering data. The data acquisition requirements called for data from all those with licenses to practice. The data requirements were very specific, for example, data on the numbers of nurses with advanced education or graduate degrees by specialty and data on average rates of compensation by type of employment and location of practice.[8]

In July 1975 the Division of Nursing contracted with Westat, Inc., a survey research firm with expertise in complex survey designs. Westat worked with the ANA, under a subcontract, and with the Division to develop a survey plan that could satisfy the data element requirements in EL. 94-63, Section 951; provide baseline data to satisfy models providing estimates and projections of the nurse supply in the country and in each State; and provide data on nurse characteristics needed for program planning, administration, monitoring, and evaluating by Congress, State legislators, and Federal and State agencies and associations. The study design was completed in June 1976.[9]

The first study in the series was conducted in September 1977 under contract to the ANA with a subcontract to Westat, Inc. During the conduct of that study, the design, recommended procedures, and processing were refined. The recommended sample size was reduced to facilitate the shift from design to operational phases.[10] Subsequent studies were carried out in 1980, 1984, 1988, and 1992.[11,12,13,14] These studies followed the design developed in 1976 and refined in the first survey and used the full recommended sample size.

THE 1996 RN WORKFORCE STUDY

The study method was last implemented in a survey that collected data as of March 1996. The sample selection, data collection, and processing of this study was carried out by Research Triangle Institute under a contract with the Division of Nursing. This report a summarizes the results of that study

As was the case in prior studies, the data collection instrument responds to the specific data requirements cited in Section 951 of P. L. 94-63 and provides the necessary base data for developing projections of the supply and distribution of and requirements for registered nurses. It also contains some new areas of inquiry designed to obtain information on issues of current particular importance. However, as in prior studies, the survey instrument is designed to ensure that the data collected from study to study provide sufficient continuity so that an evaluation can be made of trends in nursing resources.

In accord with the study design developed for this study series, samples were drawn from each State's lists of licensees because no single, unduplicated, list of individuals who have licenses as registered nurses exists in the country Disproportionate sampling from State to State was used to provide statistically improved estimates of the number of nurses in each State while maintaining the overall sample size within reasonable bounds. Larger proportions of the licensees in States with fewer registrants were sampled than in States with more registrants. A weighting procedure was used to account for duplication of licenses from State to State so that estimates could be developed of the number of *individuals* who hold licenses to practice as RNs regardless of the number of State licenses they hold. Based on March

1996 data, the almost 2,900,000 licenses to practice as registered nurses in existence in the United States were held by about 2,600,000 nurses.

The initial sample selection for this survey consisted of 45,339 licenses of which 3,829 were identified either at the time of selection or in the subsequent data collection as duplicates for nurses licensed in other states. After taking account of duplications and sample selection errors, the overall response rate to the study was 72.34 percent. A total of 29,950 individual nurse responses were used to derive the data. This report primarily presents data and their analysis on those RNs who, as of March 1996, were employed in nursing in the United States or, if not employed in nursing, reside in the country; 29,766 out of the 29,950 respondents fit this definition of location.

To ensure an adequate response to the survey, three mailouts were carried out, followed by a telephone interview of those who had not responded. Particular efforts were made to obtain correct addresses for those in the sample, both prior to the initial mailing and during the subsequent period of data collection. In addition to the efforts to reduce the nonresponse to the survey, careful screening of responses was undertaken to minimize ambiguous responses or nonresponses to individual questions.

Questions on the survey instrument were prioritized according to their importance to the overall registered nurse data base, and the degree to which the question might be sensitive in nature. A response rate goal was established for each question. Based on the priority rankings and the response rate goals, respondents were called to clarify the response made or to obtain the missing information. When a call was made for a high priority question, the respondent was queried about any other ambiguous or missing items regardless of priority order. All respondents to the survey had to be classified according to whether they were employed in nursing as of March 1996. Each respondent was also classified according to location State.

In addition to the identification and follow-up of missing data, the editing procedures for the study provided for a review of the items specified in the "other" categories within the questions. Those that could be were reclassified to already stated categories. The remaining ones were examined to determine whether there was a sufficient number of a particular response to warrant a separate itemization.

ORGANIZATION OF THE REPORT

The substantial data base resulting from the 1996 study provides the basis for many different types of analyses of a variety of subjects. This report presents an overview of the personal, professional, and employment characteristics of the almost 2.6 million registered nurses in the country as of March 1996. A summary of the findings from the study and some comparisons to the findings of prior studies in this series are presented in the succeeding chapters. Appendix A contains a series of tables describing the data. A review of the survey methodology and the statistical techniques used in sample selection, response weighting, and identification of sampling errors are found in Appendix B. The survey instrument is included in Appendix C.

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CHAPTER II

OVERVIEW OF THE REGISTERED NURSE POPULATION 1980-1996

During the time span in which the National Sample Surveys of Registered Nurses have been carried out, the economic and social environment of the nursing profession has undergone many changes. Among the significant changes affecting nursing were increased participation of women in the nation's workforce, increasing numbers of minorities among the country's population, periods of recession and inflation, technological innovations in health care, increasing concerns about health care costs, and restructuring of the health care delivery system. The continuity in the survey questions allows for an assessment of the trends in the number and characteristics of the registered nurse population. A brief overview of some of the relevant findings from the November 1980 through March 1996 studies provides base data for examining of the impact of the changing environment on nursing.

THE REGISTERED NURSE POPULATION

The registered nurse population in the United States increased by almost 900,000 between November 1980 and March 1996. In March 1996, 2,558,874 individuals in the country were estimated to have licenses to practice as an RN, 54 percent more than in November 1980. The RN population experienced its highest average annual rate of growth, 3.4 percent, between the March 1992 and March 1996 studies. The lowest average growth rate, 2.3 percent, occurred between the November 1984 and March 1988 studies.

Since increasingly higher proportions of those with licenses to practice were employed in nursing over the years, the number of employed nurses showed a greater growth during the course of these studies than did the overall RN population. The number of employed nurses increased 66 percent between November 1980 and March 1996. Unlike the growth pattern for the RN population, however, the largest gain in the number of employed RNs was experienced during the early portion of the series. The November 1980 through November 1984 period showed an average annual growth rate of growth of 3.9 percent. The percent of the total RN population that was employed in nursing increased from 76.6 percent in November 1980 to 78.7 percent in November 1984.

Between March of 1992 and 1996, the number of employed nurses grew at an average annual rate of 3.4 percent, the same as the increase shown for the RN population. In both the 1992 and 1996 studies, 82.7 percent of the RN population were employed in nursing. As shown in Chart 1, there was a substantial increase in the portion of the RN population that was employed in nursing on a full-time basis. In this 4-year period, the number of RNs who were employed on a full-time basis increased 18.4 percent, or an average 4.3 percent per year. The number of part-time nurses grew by only 5 percent for the whole period.

EDUCATIONAL PREPARATION

The data on the type of educational program in which nurses received their initial nursing education reflect considerable change in the time period over which these studies were conducted. The proportion

Chart 1. Registered Nurse Population, by Nursing Employment Status, 1980-l 996

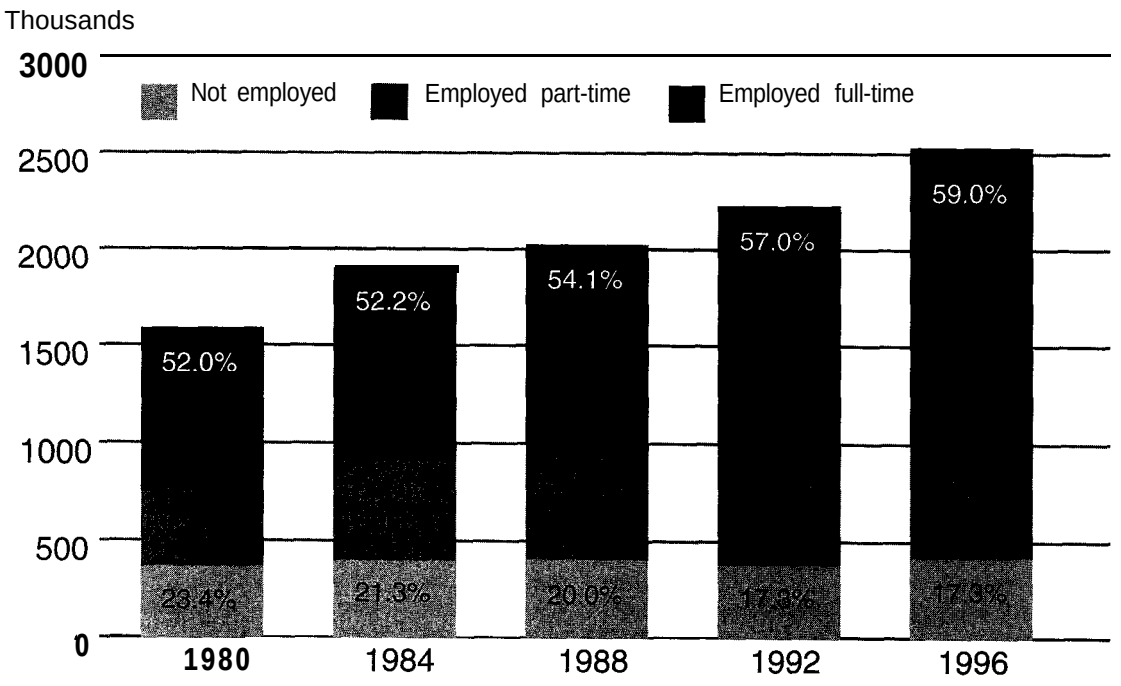
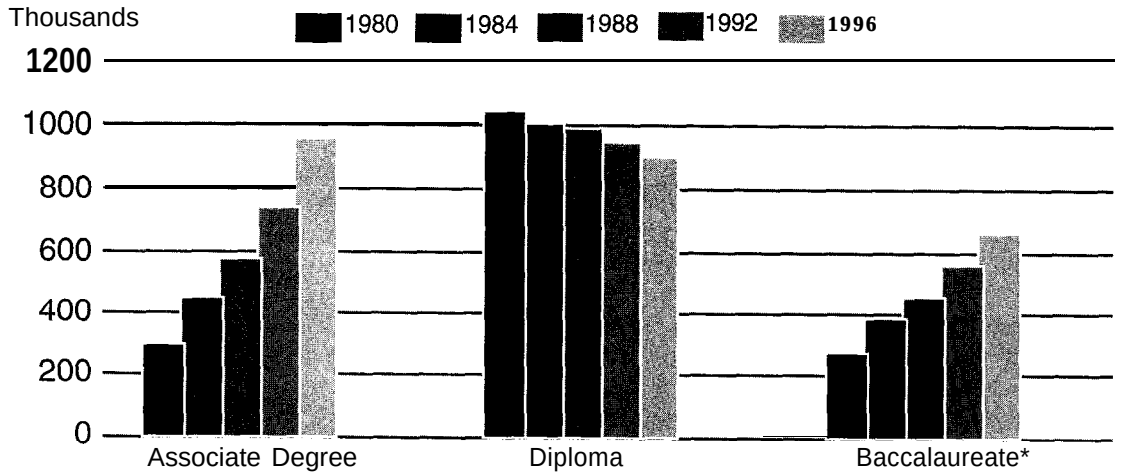


Chart 2. Basic Nursing Education of Registered Nurse Population, 1980-l 996



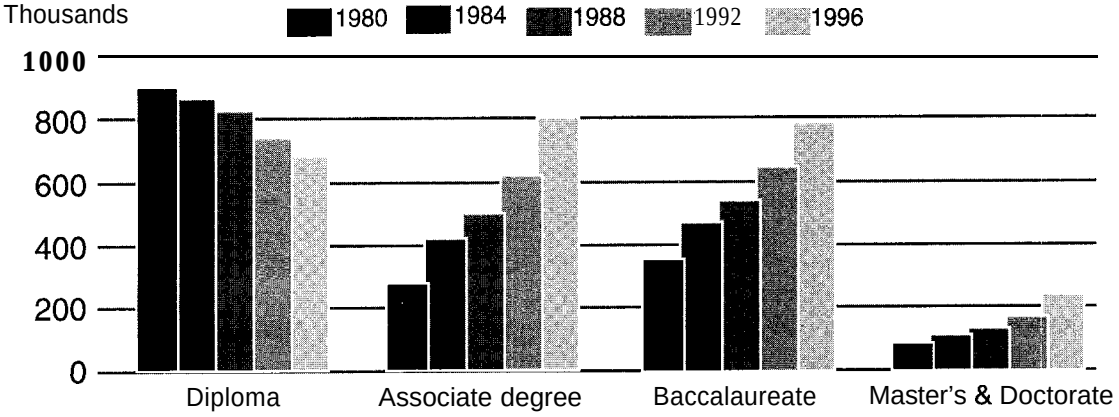
** Includes some R.N.s whose basic nursing education was in a master's or doctoral program*

of the RN population who graduated from diploma programs declined from 63 percent in November 1980 to 36 percent in March 1996. The proportion who had graduated from associate degree programs increased from 19 percent in 1980 to 38 percent in 1996. Unlike the prior surveys, the number of those in the RN population in March 1996 who had graduated from associate degree programs exceeded the number who had graduated from diploma programs. About 965,000 nurses received their initial education in an associate degree program. In contrast, diploma program graduates in the March 1996 RN population numbered about 911,000 and basic baccalaureate graduates about 676,000 (See Chart 2).

The distribution of the RNs according to their highest level of nursing education, which incorporates any additional post-RN degrees received, is also influenced by the rapid growth in the number of those who received their initial education in an associate degree program. Almost a third of the total 1996 population, more than 812,000 RNs, had an associate degree as their highest level of nursing education. In all the prior studies, the number of diploma-prepared nurses and of baccalaureate-prepared nurses each exceeded the number of those who were prepared at the associate degree level. As was the case with the basic nursing education distribution of the RN population, the number whose highest education in Marach 1996 was an associate degree outstripped the number of nurses in each of the other two categories.

The number of nurses whose highest nursing educational level was a master's or doctoral degree also showed substantial increases over the course of these studies, particularly between the March 1988 through 1996 period. Since 1988 the number of nurses with advanced degrees grew at an average annual rate of at least 8 percent. In November 1980, those with master's or doctoral degrees were estimated at about 86,000, or about 5 percent of the 1,662,382 in the RN population. They numbered over 248,000, or almost 10 percent of the 2558,874 RNs in the March 1996 population (See chart 3).

Chart 3. Highest Nursing Educational Preparation of Registered Nurse Population, 1980-l 996

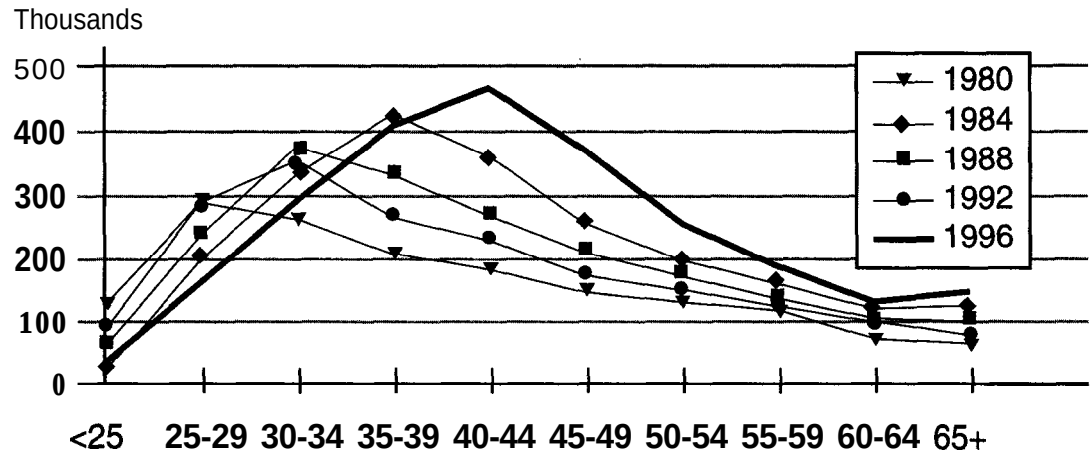


AGE

The sample surveys documented the aging of the RN population. Between November 1980 and March 1996, the number of RNs in the population who were less than 30 years old decreased about 45 percent despite the 54 percent increase in the overall RN population. RNs who were under 30 years old represented about 25 percent of the population in November 1980. By March 1996, they were less than 10 percent of the total nurse population.

The population of RNs has shifted toward one in which the middle age groups predominate. About 74 percent of the nurses in 1980 were less than 50 years old, while in 1996 about 70 percent were less

Chart 4. Age Distribution of Registered Nurse Population, 1980-1996



than 50 years old. In 1980 about 20 percent were in the 40 to 50 age category; in 1996, about 33 percent were in that age category. The average age of RNs increased from 40.3 years in November 1980 to 44.3 years in March 1996 (See chart 4).

GENDER

Since the 1980 study, significant gains were made in the number of male RNs. Although men still represent a very small portion of the total RN population, only 5 percent, they numbered 124,630 in March 1996 compared to 45,060 in November 1980. Each of the studies indicated that the number of men has grown at a much faster rate than has the total RN population; however, since the March 1988 study this rate has accelerated. Between 1988 and 1992 the average annual growth rate in the number of men was 7 percent; while between 1992 and 1996, it was 8.9 percent.

RACIAL/ETHNIC BACKGROUND

The numbers of nurses from Asian/Pacific Island and American Indian/Alaskan Native backgrounds showed the highest relative increases between 1980 and 1996: 156 percent and 177 percent, respectively. Black (nonHispanic) nurses showed the lowest relative increase, 76 percent, although they were the most numerous among all the minorities. The number of nurses from Hispanic backgrounds increased about 94 percent over the period, but they represented less than 2 percent of the overall RN population.

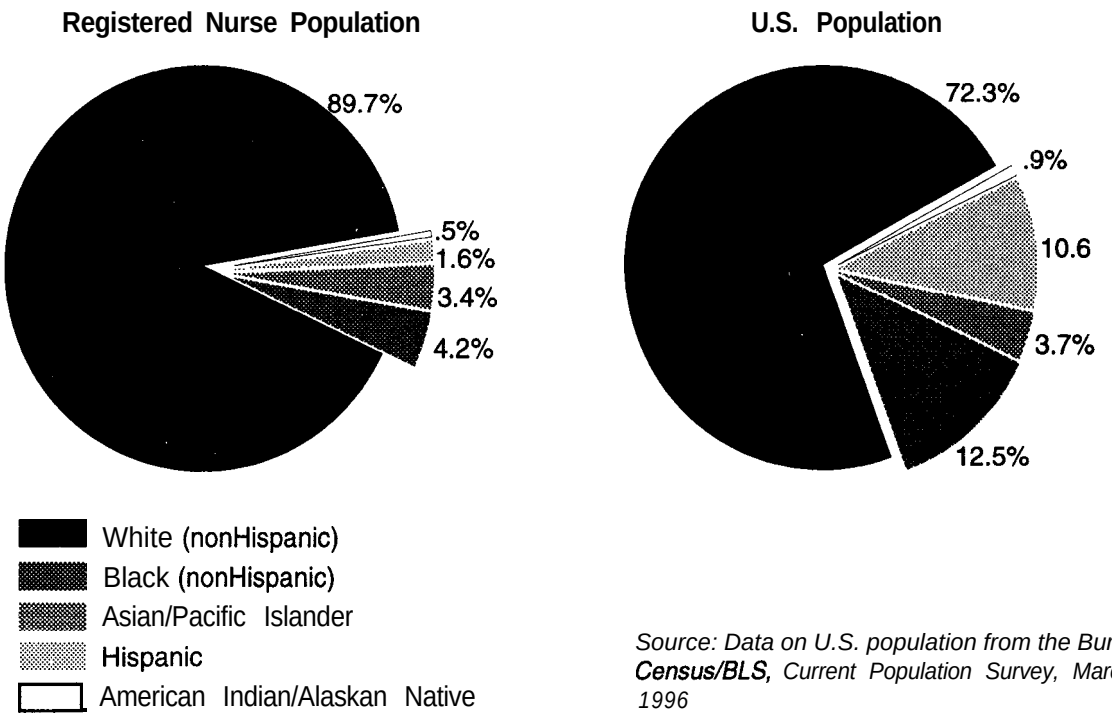
The number of minorities in the RN population has about doubled between November 1980 and March 1996. It was estimated that in 1996 there were about 246,000 RNs from minority backgrounds compared to 120,000 in 1980. The largest relative increase occurred in the 1988 to 1992 period when the number of minority nurses increased 33.6 percent from about 155,000 in 1988 to 207,000 in 1992.

Since the overall increase in the minority nurse population was greater than that of the growth in the total RN population, the proportion of the RN population from minority backgrounds increased from about 7 percent in November 1980 to almost 10 percent in March 1996. As can be seen on Chart 5, the proportion of RNs from racial/ethnic minority backgrounds in the total RN population still falls far short of the proportion of minorities in the total population of the country.

EMPLOYMENT SETTINGS

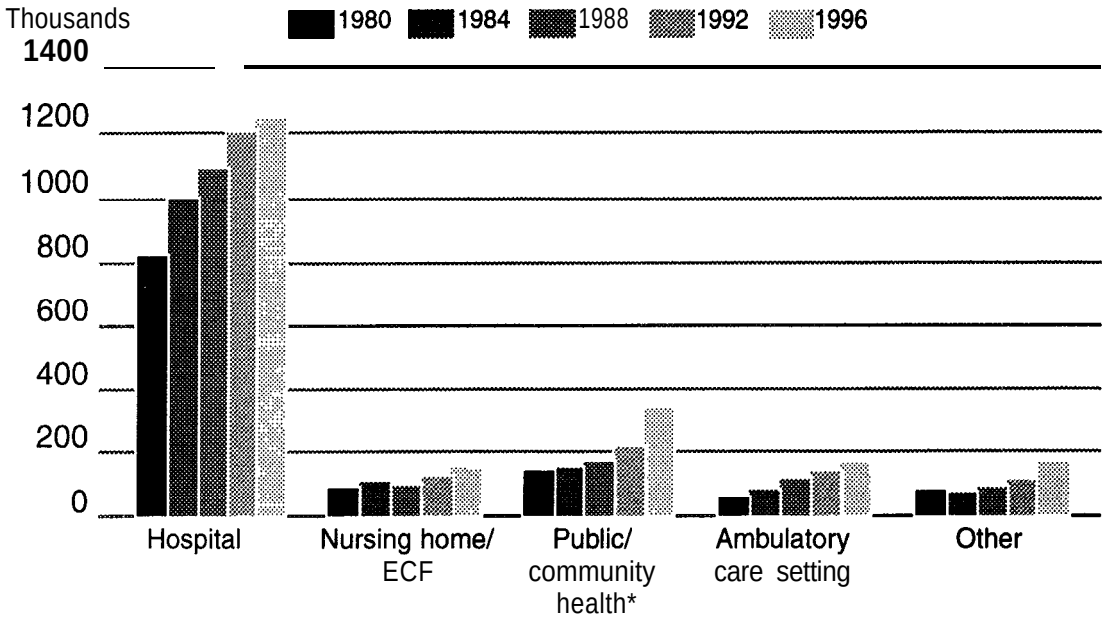
The non-institutional health care settings showed the largest increase in the employment of RNs between November 1980 and March 1996 (See Chart 6). After making adjustments to account for

Chart 5. Distribution by Racial/Ethnic Group, March 1996



Source: Data on U.S. population from the Bureau of Census/BLS, Current Population Survey, March, 1996

Chart 6. Employment Settings of Registered Nurses, 1980-l 996



**Includes occupational health and school health settings.*

differences over the year in the survey questions on employment settings, the data showed that RN employment in ambulatory care settings increased about 137 percent. These settings included physician's offices, nurse-based practices, freestanding clinics, and health maintenance organizations. Public and community health settings, including State and local health departments, visiting nursing services and other home health agencies, community health centers, student health services, and occupational health services, increased about 116 percent. In contrast, the number of RNs employed in hospital settings increased about 50 percent over the period and those in nursing homes or other extended care facilities, 64 percent.

Within the period of comparative study, 1980 to 1996, the time of greater gains varied by health care settings. For example, the ambulatory care settings experienced greater gains during the early part of the time span. Public/community health settings gained at a higher rate in the later survey years than in the earlier years. Between 1988 and 1992, the increase in the number of RNs in public/community health settings was primarily due to substantial growth of employment of nurses in the home health care area. In the 1992 to 1996 period, home health agencies had a 65 percent increase and showed the highest growth rate among the various types of settings within this category. Other settings also exhibited relatively strong growth rates. For example, the number of RNs employed in city or county health departments increased 33 percent between 1992 and 1996, after showing a decline in the 1988 to 1992 period. When all the types of community health centers are considered as a group, the number of RNs employed in these settings increased 42 percent between 1992 and 1996 after expanding only 17 percent between 1988 and 1992. The number of RNs in public school systems increased 29 percent in the 1992 to 1996 period following a 22 percent gain between 1988 and 1992.

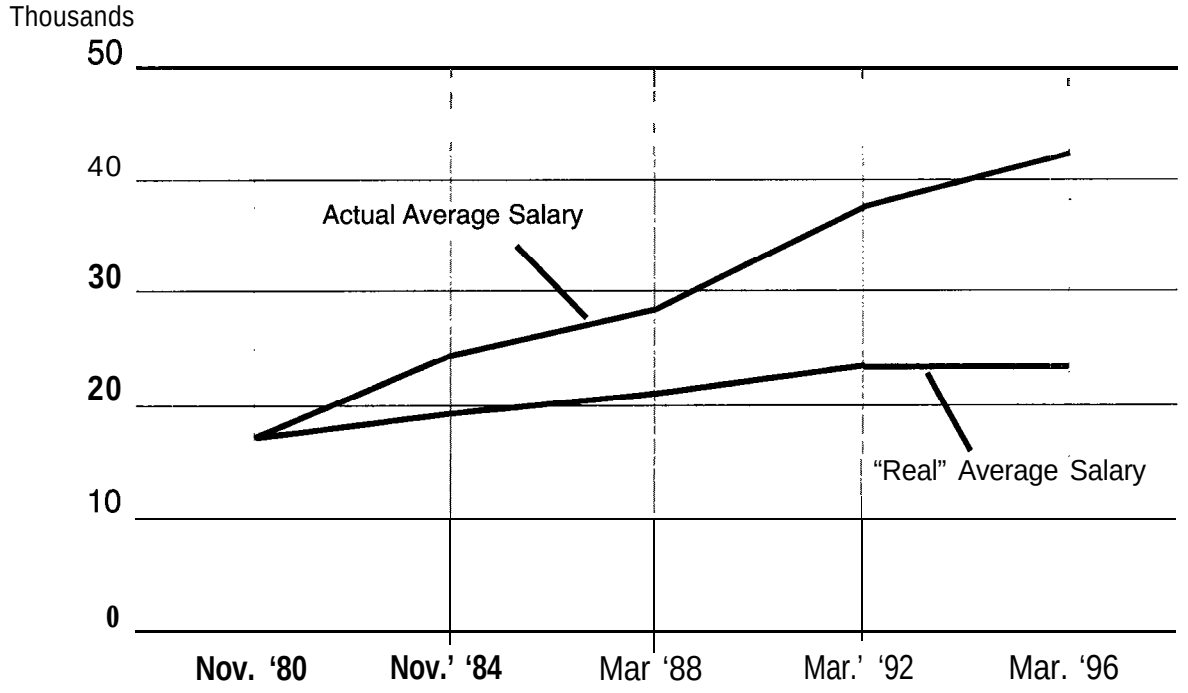
The increases in employment of RNs in nursing homes and other extended care facilities came mostly during the 1992 to 1996 period when the number of nurses increased 32 percent. In the earher survey periods the number of nurses in nursing homes increased minimally or, in the case of the 1984 to 1988 period, decreased.

Despite the relatively low growth rate in the number of RNs, hospitals still remain the single most important employment setting for nurses. In March 1996, although there was only a 3 percent increase in the number since the March 1992 study, RNs employed in hospital settings constituted 60 percent of the 2,115,815 employed nurses. The changing picture within the hospital setting, however, is evident from an examination of data on the type of unit in which hospital-employed nurses spent a majority of their direct patient care time. Such data were collected in the last three studies. In March 1996, 59 percent of the nurses who spent any time in direct patient care provided the majority of their care in an inpatient bed unit. In 1988, 67 percent of the nurses did so and in 1992, 64 percent were in that category The actual number of these nurses decreased between 1992 and 1996, going from 721,381 to 676,989. Between 1988 and 1996, the number of RNs in outpatient departments more than doubled, from 36,904 to 77,437. A large segment of this growth occurred in the 1988 to 1992 period when the number increased almost 68 percent. The labor/delivery room work units also experienced substantial growth. Between 1988 and 1996, the number of RNs working there increased almost 52 percent, from 52,308 to 79,258.

AVERAGE EARNINGS

The average annual earnings of an RN employed on a full-time basis in March 1996 was $42,071, 11.5 percent more than in March 1992. However, when changes in the purchasing power of the dollar between those dates are taken into account, the average real earnings of the nurse in 1996 was actually slightly less than in 1992. The highest increases in annual earnings were noted for the November 1980 to 1984 period when average earnings increased 35.1 percent. In the March 1988 to 1992 period, there was a 33.2 percent increase in average earnings. If the purchasing power of the dollar were taken into account, the increase the nurses experienced in the 1988 to 1992 period was actually greater than that of the 1980 to 1984 period (See Chart 7).

Chart 7. Actual and "Real" Average Annual Salaries of Full-time RNs, November 1980–March 1996



Note: "Real" salary based on CPI (1982-84 = 100)

CHAPTER III

CHARACTERISTICS OF THE REGISTERED NURSE POPULATION

THE POPULATION AS A WHOLE

In March 1996 an estimated 2564,786 individuals had current licenses to practice as registered nurses (RNs) in the United States. Of these, 2558,874 were located in this country and 5,9 12 were located outside the 50 States and the District of Columbia. The data in this report focus on the RNs who were located within the country. Nurses were considered to be located in the country if they were employed in nursing in one of the 50 States or the District of Columbia or, if they were not employed in nursing, they were residents thereof.

RNs may maintain licenses to practice when they are not employed in nursing. This study demonstrates that a substantial proportion of the licensees are employed in nursing. Of the 2,558,874 with licenses to practice, 82.7 percent, or 2,115,815, were employed in nursing (See Appendix A, Table 1).

Racial/Ethnic Background

Almost 10 percent of the total RN population, or an estimated 246,363 RNs, came from racial/ethnic minority backgrounds. Of these, 107,527 were black (nonHispanic); 86,434 were Asian/Pacific Islanders; 40,559, Hispanic; and 11,843, American Indian/Alaskan Native. RNs from minority backgrounds were more likely to be employed in nursing than nonminority nurses. About 88 percent of the minority nurses were employed in nursing, in comparison to 82 percent of the nonminority nurses. Minority nurses were also more likely than nonminority nurses to be employed full-time. Eighty-five percent of the minority nurses were working full-time compared to 70 percent of the nonminority nurses.

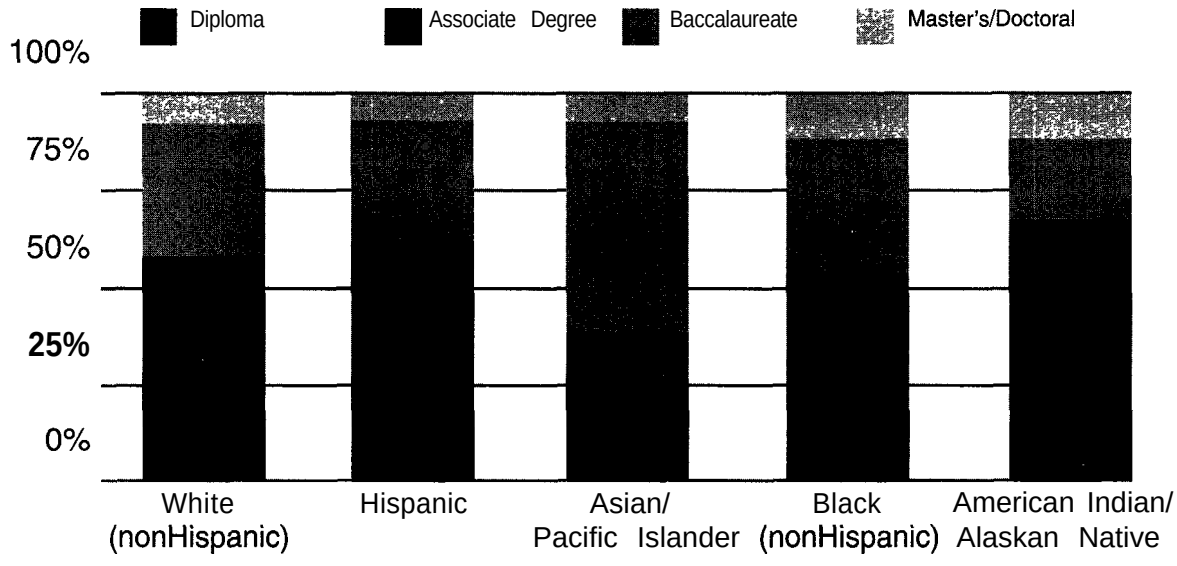
With the exception of RNs from an Asian/Pacific Island background, the distribution of RNs in each of the racial/ethnic categories according to their initial nursing preparation is similar in that they were likely to have graduated from either a diploma or associate degree program. The majority (53.3 percent) of the RNs from Asian/Pacific Island backgrounds graduated from baccalaureate programs. About one-quarter of each of the other groups graduated from baccalaureate programs. However, as can be seen in Chart 8, when both the initial and post-RN education are taken into account, blacks and Asian/Pacific Islanders were more likely than Hispanics and nonminorities to have at least baccalaureate preparation. Among blacks, 12 percent had master's or doctoral degrees compared to about 10 percent of the nonminority nurses and approximately 7 percent of the Hispanic and Asian nurses.

Entrants into Nursing

In March 1996, the average age of all RNs was 44.3 years, the highest level since the survey series was initiated. Only 9 percent of the RNs in 1996 were less than 30 years old. A similar picture is evident for those employed in nursing. The average age was 42.3, and only about 10 percent were less than 30 years old.

A number of factors could contribute to this rising age level among nurses. The characteristics of the new entrants into nursing are particularly relevant to identifying these factors.

Chart 8. Distribution of Registered Nurses in Each Racial/Ethnic Group, by Highest Educational Preparation, March 1996



Almost one-third of the RNs in March 1996 had worked in a health care occupation immediately prior to attending a basic nursing education program (See Appendix A, Table 2). The majority of these 835,281 nurses, 57.1 percent, had worked as nursing aides. Another relatively large group, 28.0 percent, had licensed practical/ vocational nurse (LPN/LVN) positions before going into a basic nursing education program.

Nurses who were health occupation workers just before entering a basic nursing education program tended to enroll in an associate degree program to prepare for RN Iicensure. This was particularly true of those who had worked as LPN/LVNs. Eighty-two percent of the individuals thus employed immediately prior to their basic nursing education program had selected associate degree programs.

In total, there were 275,184 registered nurses in March 1996, 10.8 percent of all the 2,558,874 RNs, who had been LPN/LVNs at sometime prior to becoming registered nurses (See Appendix A, Table 3). Licensed practical/vocational nurses were more likely to be found among those who became RNs recently. Almost half of them, 49.4 percent, received the education that prepared them for RN licensure within the 1 O-year period preceding the March 1996 date of this study.

About 11 percent, or 278,753, of the 2,558,874 RNs had post-high school academic degrees before entering the basic nursing education programs that prepared them to become RNs (See Appendix A, Table 4). A total of 30,976 of the 278,753 had also been LPN/LVNs. Here, again, the individuals with prior degrees were most likely found among the more recent RN graduates; 33.7 percent had graduated from a basic nursing educational program within the 5-year period prior to the survey.

Registered nurses with post-high school academic degrees were less likely than those who had been licensed practical/vocational nurses to get their basic nursing education in an associate degree program. About 54 percent of these RNs received their basic nursing education in an associate degree program, compared to 81 percent of those who had been LPN/LVNs sometime before becoming RNs.

Age at Graduation from Basic Nursing Education Program

The age at which individuals are entering into nursing practice has been increasing. For those who had graduated in the five years before the study date, the average age at graduation from a basic nursing education program was 31.7 years, compared to the

average age of 23.2 years for those who had graduated over 15 years before (See Appendix A, Table 5).

The increasing average age of graduates from basic nursing education programs is due in part to the shifting distribution in the types of educational programs from which the nurses graduate. In recent years increased proportions of graduates are from associate degree programs. Associate degree graduates tend to be older, on average, than their counterparts in diploma or baccalaureate programs. In addition, the average age at graduation has increased for each type of RN entry program. Therefore, as noted in Chart 9, the average age of those who graduated from their basic nursing education program within the 5-year period preceding the survey date ranged from 28.0 years for baccalaureate program graduates to 33.5 years for associate degree program graduates.

Registered nurses who had prior academic degrees or who were LPN/LVNs generally showed the same increasing graduation age trends as did all the nurses. However, in both instances they were older on the average than their counterparts who did not have these prior educational experiences. If the proportion of new entrants into the RN population with prior post-high school degrees continues to increase, it can be anticipated that the average age at which individuals become RNs will continue to rise.

Despite the increasing average age of RNs, the proportion of nurses who are employed in nursing continues at a relatively high level. Nurses in most age groupings are more likely to be employed in nursing in the more recent years than in the past. This may be due, in part, to changes in the effects of family status on the propensity of nurses to work.

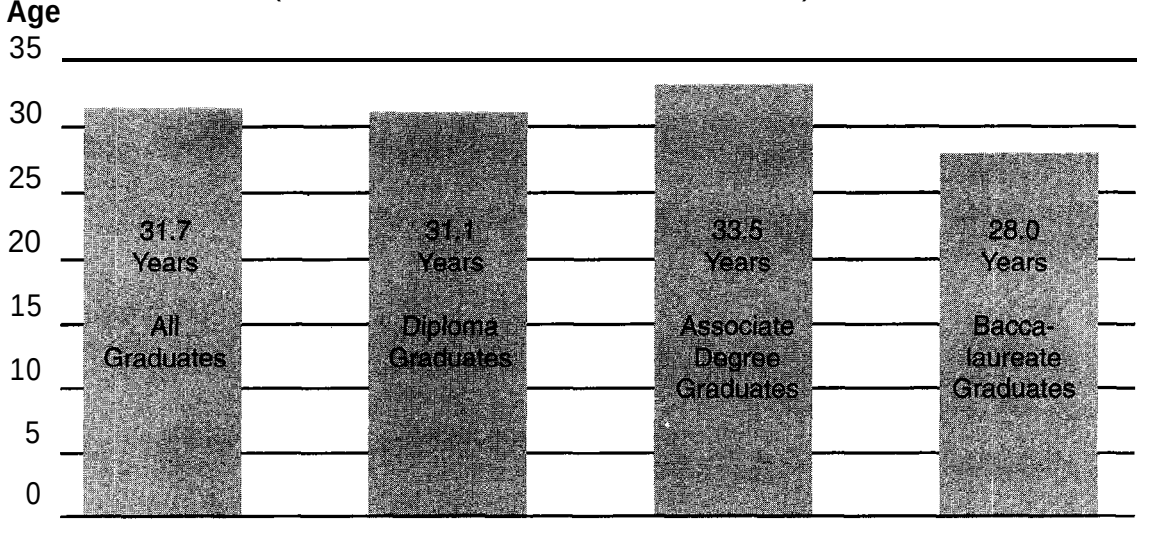
Family Status

In March 1996, 72 percent of all the RNs were married; 17.6 percent were widowed, divorced, or separated, and 10 percent were never married (See Appendix A, Table 6). Fifty-five percent had children living at home. Forty-six percent of all the nurses had children under the age of 6. In each instance, whether or not they were married or had children, the overwhelming majority were employed in nursing.

Family status made a difference in whether the nurses were working full- or part-time. Employed married nurses with children, particularly those with children under the age of 6, were more likely than other employed nurses to be working on a part-time basis. About 29 percent of the 2,115,815

Chart 9. Average Age at Graduation from Basic Nursing Educational Programs

(Graduations between 1991 and 1996)



employed nurses were working on a part-time basis. Forty-four percent of the employed married nurses with children under the age of 6 were working on a part-time basis.

The total income available to a nurse's household might also be an influencing factor on the degree to which a nurse chooses to be employed. Survey respondents were asked to estimate income for 1996, including their earnings and their spouse's earnings if married, and all other income including alimony, child support, dividends, royalties, interest, social security, and retirement. Based on the data in Appendix A, Table 7, it is estimated that the 1996 median family income of the total RN nurse population was $59,764. For all those employed in nursing, the median family income was $61,225.

For married nurses, the estimated 1996 median family income was $68,771. If the married nurses were employed in nursing on a full-time basis, it was $70,907. If they were working part-time, their estimated median family income was $66,855; and if they were not working, it was $60,962.

Nursing Educational Preparation

The basic educational preparation for the largest single group of registered nurses is that of the associate degree. About 38 percent, or 965,059 of the 2,558,874 RNs, received their basic nursing education in an associate degree program. Thirty-six percent had attended diploma programs and 26 percent, baccalaureate programs. Registered nurses employed in nursing were even more likely to have been initially educated in an associate degree program; 41 percent of them came from associate degree programs. Diploma programs prepared 32 percent of the employed nurses and baccalaureate programs about 27 percent. (See Appendix A Table 8).

As can be seen on Table 5 in Appendix A, if current basic nursing education trends pertain, it can be anticipated that in future years a higher proportion of the RN population will come from associate degree programs. About 62 percent of those who graduated within the most immediate 5-year period were associate degree graduates.

When all the formal nursing education preparation of the 1996 RNs was taken into account, both the initial education preparing for RN licensure and any that was taken subsequent to licensure, 27 percent, or 696,804 out of the 2,558,874, had a diploma as their highest educational preparation (Appendix A, Table 8). About 32 percent, or 812,438, had an associate degree. Thirty-one percent, or 799,507, had baccalaureates, while 231,977, 9.1 percent of the total had master's degrees. About 16,500 were estimated to have doctoral degrees.

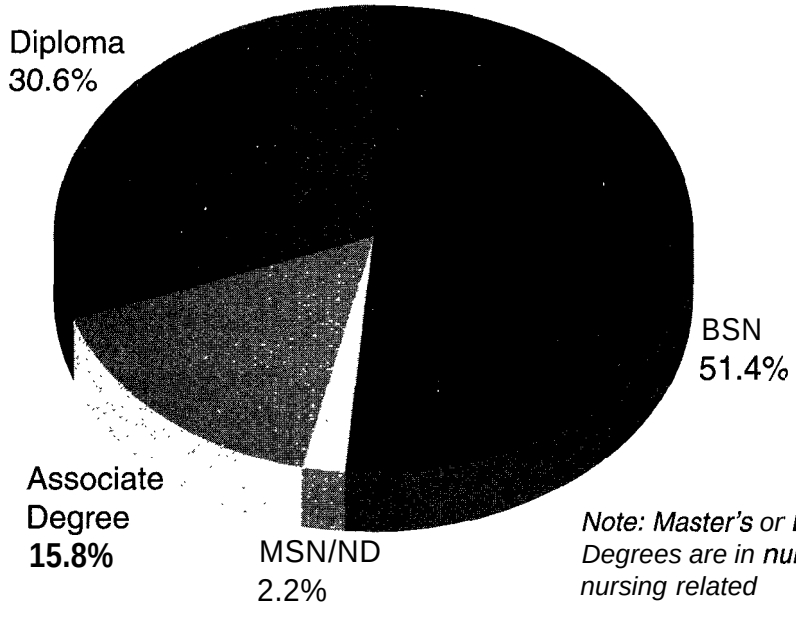
It should be noted that not all the post-RN degrees came from programs granting nursing degrees. A number of the nurses have degrees that are not in nursing but are related to their nursing careers. This was more likely to be found among master's and doctoral degree graduates. About 29 percent of the nurses with master's degrees and 53 percent of the nurses with doctoral degrees had degrees in a related field.

In all, about 20 percent of the 1996 RN population had completed additional academic nursing or nursing-related preparation after they graduated from their basic nursing education. About 16 percent of those initially prepared in associate degree programs and 23.5 percent of those prepared in diploma programs had obtained post-RN nursing or nursing-related degrees. In both instances the highest level achieved for substantial proportions of these nurses was a baccalaureate degree. Among associate degree nurses, 75 percent of those who had received additional degrees had a baccalaureate as their highest degree. For diploma-prepared nurses, the comparable proportion was 62 percent. About 19 percent of those prepared initially in a baccalaureate program had obtained post-RN degrees. As noted on Chart 10, the latter group represents the majority, 52 percent, of those whose highest level of nursing or nursing-related education is a master's or doctoral degree.

The primary focus of the degree for the majority of the nurses who had post-RN nursing education master's degrees in nursing or in a nursing-related field was clinical practice (See Appendix A, Table 9). Almost 23 percent had majored in supervision/administration and 20 percent in education.

Post-RN doctoral degrees were focused mainly on either education or research. The primary field of study for 37.5 percent of the nurses with such degrees was education. For 34 percent, it was research. Clinical practice or supervision/adminis-

Chart 10. RNs Whose Highest Education was a Master's or Doctoral Degree, by Type of Basic Nursing Education, March 1996



tration was the focus of the doctorates for far less nurses.

In March 1996 about 8 percent of the country's RNs, 206,155 out of the 2558,874 population, were enrolled in a formal education program leading to a nursing or nursing-related degree. Those enrolled in academic programs were most likely to be part-time students and to be employed in nursing on a full-time basis (See Appendix A, Table 10).

A sizable proportion, 11 percent, of the RNs were enrolled in formal educational programs such as those leading to an advanced practice post-RN certificate. About 47 percent were enrolled in programs leading to a baccalaureate degree, 37 percent to a master's degree, and almost 5 percent to a doctoral degree (See Appendix A, Table 11). Although 79 percent of the 206,155 RNs who were enrolled in educational programs initially graduated from associate degree or diploma programs, 48 percent of those studying for master's degrees and 55 percent of those studying for doctoral degrees received their initial nursing education in a baccalaureate program.

Registered nurses attending school relied on multiple resources to pay tuition and fees. The two prime sources were personal resources and employer reimbursement plans. Almost 79 percent of the students were estimated to spend personal resources such as earnings, savings and/or family assistance. About 48 percent obtained assistance from employer reimbursement plans. Federal sources of support in the form of traineeships, scholarships, or grants were a resource for almost 6 percent and Federally-assisted loans for about 8 percent. However, Federal resources were somewhat more important for master's and doctoral degree students than for baccalaureate students. About 18 percent of the master's degree students and 20 percent of the doctoral degree students had obtained some type of Federal support compared to 9.5 percent of the baccalaureate degree students (See Appendix A, Table 11).

Advanced Practice Nurses

Increased interest in expanding the access and availability of health care has led to particular emphasis on advanced practice nurses. The category of advanced practice nurses includes clinical

nurse specialists, nurse anesthetists, nurse-midwives, and nurse practitioners. As the study series progressed, and as this area of inquiry became more important, the questions were modified to expand and clarify the information requested from nurses with these specialties. The most expanded and specific data were obtained in this latest, March 1996 study.

After reviewing the data provided by the respondents, it was clear that some misinterpretation of the questions might have occurred particularly since the data collection instrument does not contain any definitions of terms. Therefore, a special analysis was made of these data. Responses to multiple areas of inquiry were combined to determine those most likely to be appropriately classified within the category of advanced practice nurses. Since a portion of the sample respondents indicated that they belonged to more than one of the groups of advanced practice nurses, responses to a number of the questions were also examined to determine to which of the four groups of advanced practice nurses they should be assigned. Because it is not uncommon for nurses to be prepared as both a clinical nurse specialist and a nurse practitioner, nurses were assigned to this dual group if they appeared to have the necessary requirements to fit both categories.

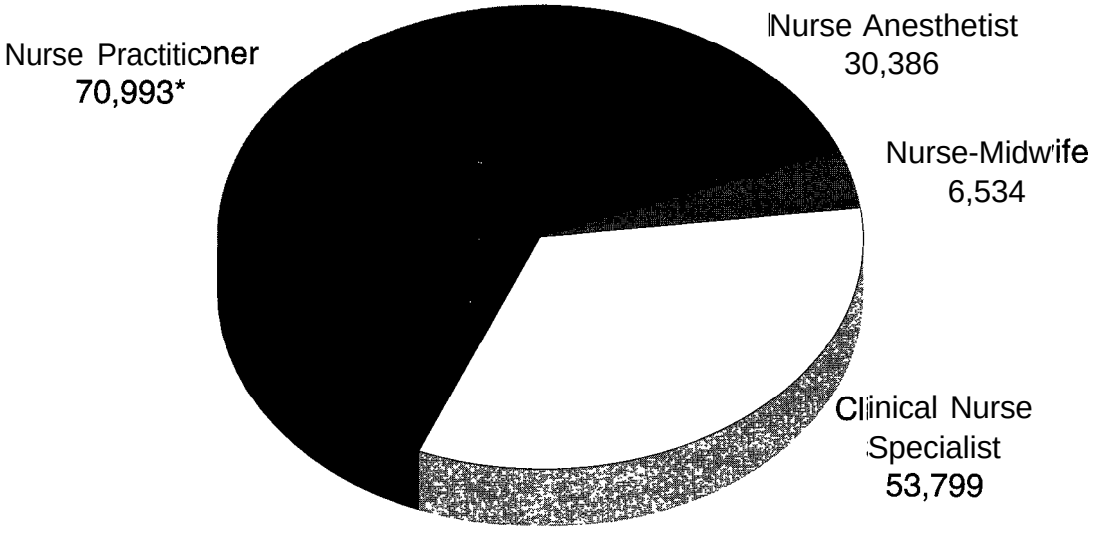
Table 12 in Appendix A presents the results of this special analysis. In total, an estimated 161,712 RNs were prepared to practice in at least one of these advanced practice roles. As noted in Chart 11, the largest group among the advanced practice nurses was the nurse practitioners followed by the clinical nurse specialists. These two groups together constitute 77 percent of the advanced practice nurses.

Nurse Practitioners

Included within the nurse practitioner (NP) group were all those prepared beyond basic nursing education in a nurse practitioner program of at least 3 months. Given the evolving nature of the education of these nurse practitioners in the 30 to 35 years during which the role has developed, it was felt that the study did not have sufficient information to

Chart 11. Registered Nurses Prepared for Advanced Practice, March 1996

Total Advanced Practice Nurses: 161,712



* 7,802 *were also clinical nurse specialists.*

refine the data further. However, the data in this study demonstrates that the education of NPs now primarily takes place in a master's degree program. It was estimated that, in March 1996, only about 44 percent of the nurse practitioners had attended post-RN certificate programs, compared to about two-thirds of the NPs in March 1992. About 46 percent of the nurse practitioners in March 1996 came from master's degree programs and 8 percent from post-master's certificate programs. Included within the 70,993 RNs fitting the nurse practitioner definition discussed here are the estimated 7,802 who also met the definition of clinical nurse specialist. The number of nurse practitioners has increased 47 percent since 1992. In March 1992, it was estimated that there were 48,237 fitting the definition of RNs prepared to practice as nurse practitioners. This included about 2,000 whose formal preparation was that of both clinical nurse specialist and nurse practitioner.

Eighty-nine percent, or 63,532 out of the 70,993 nurse practitioners, were employed in nursing, although not necessarily with the position title of nurse practitioner. It was estimated that 36,783, or about 58 percent of the 63,532 employed nurse practitioners, had that position title. Slightly over 10 percent, or 6,643, were employed in nursing education positions. The remaining employed nurse practitioners were distributed among a variety of other types of nursing positions.

An estimated 76 percent or 53,753 out of the 70,993 RNs with formal preparation as nurse practitioners, had national nurse practitioner certification and/or State recognition as an advanced practice nurse or nurse practitioner. The number with national certification was estimated at 44,793, 63 percent of the nurse practitioners. The number with State recognition was estimated at 38,997.

Clinical Nurse Specialists

Clinical nurse specialists were defined as those who had formal clinical preparation resulting in a master's degree. It was estimated that there were 61,601 RNs prepared to practice as clinical nurse specialists in March 1996, including the 7,802 discussed earlier who were both nurse practitioners and clinical nurse specialists. Unlike the number of nurse practitioners, which showed substantial growth between 1992 and 1996, the number of clinical nurse specialists showed little change. In 1992, there were about 60,185 RNs with formal preparation as clinical nurse specialists, including those who were also nurse practitioners.

Since the data in the 1996 study show that those who are prepared as both clinical nurse specialists and nurse practitioners are more likely to function in the nurse practitioner role, the remaining discussion here will focus on the 53,799 RNs identified as having formal preparation as clinical nurse specialists but not also as nurse practitioners.

Almost 91 percent, or 48,673 out of the 53,799, were employed in nursing. However, only 11,317, or 23 percent of the employed nurses, were practicing with the position title of clinical nurse specialists. Twenty-five percent, or 11,888, were in nursing education positions. The remaining nurses had a wide variety of position titles spanning multiple functional areas.

Only 31 percent, or 16,918 of the 53,799 clinical nurse specialists, had national certification and/or State recognition as an advanced practice nurse or a clinical nurse specialist. A total of 12,679 had national certification and 8,602 had State recognition. As might be expected, the nurses with the position title of clinical nurse specialists were more likely to have national certification and/or State recognition.

Nurse Anesthetists

The third largest group of advanced practice nurses was the nurse anesthetists. Included in the nurse anesthetist category were all those with formal preparation beyond basic nursing education in which the specialty of anesthesia was studied. Using this definition, there were 30,386 nurses among the advanced practice nurses who were nurse anesthetists, 86.7 percent of whom were employed in nursing. Most of those who were employed in nursing, 21,485 out of the 26,342 employed nurses, were in positions where the job title was that of nurse anesthetist. Most had national certification, particularly those who were employed in nursing. Practically all advanced practice nurses with the position title of nurse anesthetist were nationally certified. Based on the survey data, 47 percent of the 30,386 nurses had State Board of Nursing recognition as advanced practice nurses or nurse anesthetists.

Nurse-Midwives

Among the advanced practice nurses&here are far fewer nurse-midwives than there are members of the other three groups. To identify those who were most likely to fit the definition of nurse-midwife, several screening steps were taken. The formal education beyond basic nursing preparation had to be at least 9 months in length. A second screen wad needed for the relatively large proportion of RNs in the sample who indicated they had formal preparation as nurse-midwives and were initially foreign-educated. Such nurses usually need to take additional education in the United States before they can qualify for certification in this country. Therefore, in addition to the screen for the length of the educational program, those who were foreign-educated had to be nationally certified as a nurse-midwife in order to fit the definition. Based on these criteria, there were an estimated 6,534 nurses formally prepared as nurse-midwives, 82 percent of whom were employed in nursing. Eighty-eight percent, or 5,745 out of the 6,534, had national certification as nurse-midwives. As might be expected since the position title on the survey form was that of "certified nurse-midwife", all 4,107 with the position title were nationally certified. The data in the survey indicates that 54 percent of the nurse-midwives also had recognition from State Boards of Nursing as advanced practice nurses or nurse-midwives.

An examination of these data in connection with that which appears in the succeeding section of the report on employed registered nurses suggests that there are a number of nurses with position titles equivalent to the above categories of advanced practice nurses but without the formal preparation as indicated here (See Appendix A, Table 21). This is particularly seen in the case of the clinical nurse specialists. According to the data on all employed nurses, regardless of whether they are advanced practice nurses, an estimated 35,620 had the position title of clinical mu-se specialist compared to 11,317 among those defined as clinical nurse specialists in the study. The data in Table 23 of Appendix A show that only 43 percent of the 35,620 clinical nurse specialists had master's degree preparation, which partially may account for the discrepancy. An m-depth review of the functions and responsibilities of the nurse supply that might help clarify the disparities in the data is, however, beyond the scope of this study within its current design.

EMPLOYED REGISTERED NURSES

Distribution Within Employment Settings

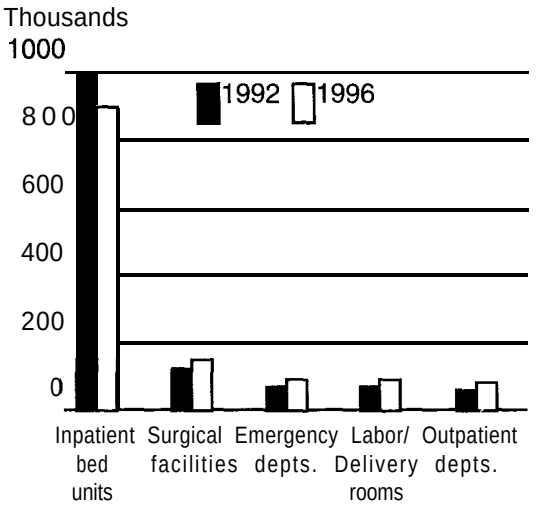
While RNs can be found in all parts of the health care system, the predominant employment setting remains that of the hospital. In March 1996, out of the 2,115,815 RNs employed in nursing, 1,270,870 or 60 percent worked in hospitals. Seventeen percent, or 362,648 RNs, worked in community/public health settings, including State or local health departments, community-based home health agencies, various types of community health centers, student health services, and occupational health services. Almost 9 percent, or 178,930 RNs, were in ambulatory care settings, including physician-based practices, nurse-based practices, and health maintenance organizations. A total of 170,856 nurses, 8 percent of all those employed in nursing, worked in nursing homes or other extended care facilities. The remaining group of those employed in nursing were working in such settings as nursing education, Federal administrative agencies, State boards of nursing, nursing or other health associations, health planning agencies, prisons/jails, or insurance companies (See Appendix A, Table 13).

The proportion of the total employed nurse supply who worked in hospitals showed a substantial decline between 1992 and 1996. However, the number of those who were in hospital settings increased, although at a lower rate than the growth shown in the total of all RNs employed in nursing. An examination of the type of units in which RNs work provides some insight into the dynamics of the hospital as the predominant work setting for RNs.

Nine out of every ten nurses in hospitals spend some portion of their time providing direct patient care services. As can be seen in Chart 12, in both 1992 and 1996 nurses providing inpatient bed care were by far the majority of hospital nurses. However, the number of nurses who provided care in these units decreased 6 percent compared to the overall increase of 3 percent for all hospital nurses. On the other hand, although still a relatively small proportion of the nurses in hospitals, RNs working in outpatient departments increased 25 percent, from 61,875 in 1992 to 77,437 in 1996. Overall, 59 percent of those providing direct patient care services in 1996 worked in inpatient bed units, compared to over 64 percent in 1992 (See Appendix A,

Chart 12. Work Units of Hospital Registered Nurses

Selected hospital work units for RNs providing some direct patient care 1992 and 1996



Percent change between 1992 and 1996 in RNs employed in hospital settings

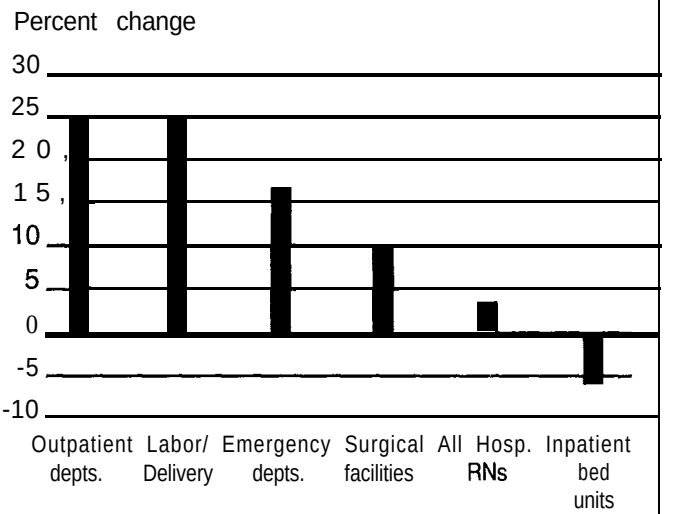


Table 14). As might be expected, nurses predominantly worked with general medical/surgical patients in both the inpatient bed units and outpatient departments. About 39 percent of the nurses in 1996 primarily cared for such patients. Next in importance were coronary care patients with over 18 percent of the nurses caring for these patients. (See Appendix A Table 15).

Characteristics within Employment Settings

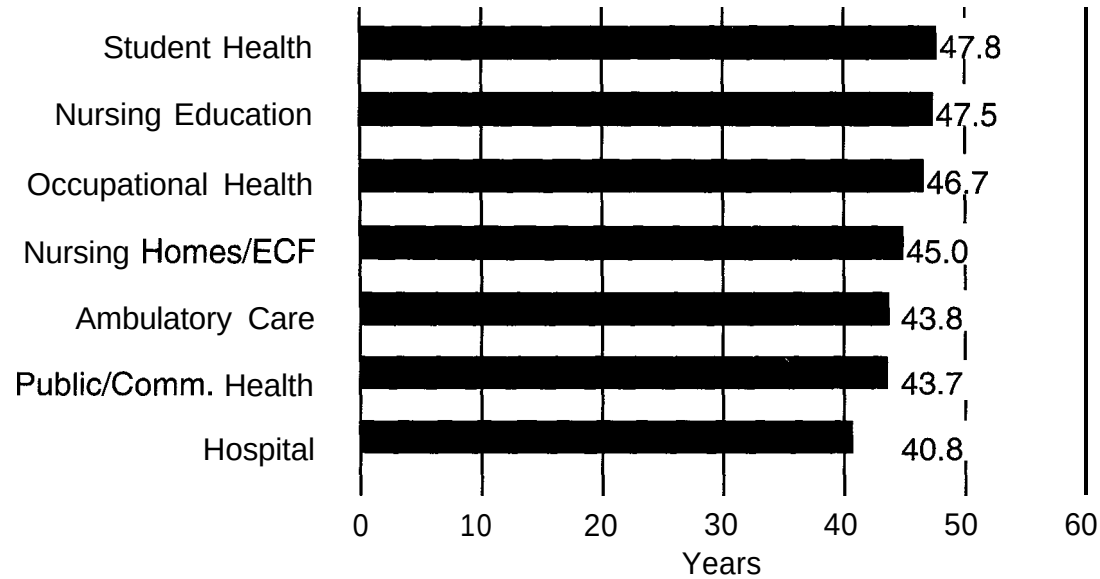
About 29 percent, or 605,497 out of the 2,115,815 employed RNs, were working on a part-time basis. The proportion working on a part-time basis varied according to the type of employment setting. The highest proportion of part-timers, about 37 percent, was found among RNs working in non-nurse practice-based ambulatory care settings. The average scheduled work hours per year for all full-time nurses was 1,994, including paid vacations, holidays, and sick leave. For part-timers, it was 1,102 hours (Appendix A, Table 16).

An examination of the differences between the number of scheduled hours per week and the actual number of hours worked showed that, for the week of March 18, 1996, nurses tended to work more hours than they were scheduled in all fields of nursing. During that week, full-time nurses averaged 41.8 actual hours in contrast to average scheduled hours of 39.4. Part-timers averaged 24.9 actual hours worked compared to 23.1 average scheduled hours (See Appendix A, Table 17).

As has been shown in earlier surveys as well, younger nurses were more likely than the older ones to be employed in hospitals. The average age of hospita1 nurses in March 1996 was 40.8 years, almost two years less than the 42.3 year average for all employed nurses. Seventy-three percent of all the employed nurses under 30 were working in hospital employment settings. In contrast, only half the nurses who were 50 years old or over worked in hospitals (See Appendix A, Table 18). Nurses in student health services, nursing education, and occupational health had the highest average ages: 47.8, 47.5, and 46.7 years, respectively (See Chart 13).

The majority of nurses in most of the employment setting categories had an associate degree or diploma as their highest nursing educational prepa-

Chart 13. Average Age of RNs in Each Type of Employment Setting, March 1996



ration. Fifty-nine percent of the nurses working in hospitals had as their highest level of nursing education an associate degree or diploma. Nursing homes drew 74 percent of their nurses from among those whose highest preparation was that of a diploma or associate degree. They were less likely than other patient care service settings to have baccalaureate, master's or doctor-ally-prepared nurses. As could be anticipated, 75 percent of those in nursing education had as their highest preparation a master's or doctoral degree. (See Appendix A, Table 19).

Employment Basis

Most nurses were employees of the facility in which they worked. About 2 percent were self-employed and 1.4 percent worked in their principal nursing position through a temporary employment service (Appendix A, Table 20).

The data on the number of RNs who worked through temporary employment services show a continuation of the decrease of similarly employed nurses noted in the 1992 study. It was estimated in 1988 that 50,678 nurses were employed in their principal nursing position through temporary employment services; in 1992 there were 35,506. In this 1996 study, the number who were employed in their principal position through a temporary employment service was estimated at 28,971. There was a greater number of nurses who, while employed through other means in their principal positions, had additional positions with temporary agencies than there were nurses who worked through such an agency in their principal position. Considered together, the total nurses who received work through temporary employment services in 1996 was 67,016, considerably less than the 84,414 in 1992 and the 88,444 in 1988.

Position Levels

Sixty-two percent or 1,309,596 out of the 2,115,815 employed nurses in 1996 were in staff-level positions. A total of 218,682, or 10.3 percent of the nurses, were in head nurse or supervisory positions. These data suggest changes in the roles of nurses. While the number of staff nurses has increased over the number in prior years, their proportion of the total employed nurses has decreased from 67 percent in 1992. Prior studies showed declining numbers of nurses in head nurse and supervisor positions. In 1988, there were 177,449 nurses in such positions. In 1992, there were

176,806 head nurses and supervisors, 9.5 percent of the 1.853 million employed nurses at that time (See Appendix A, Tables 21 and 22).

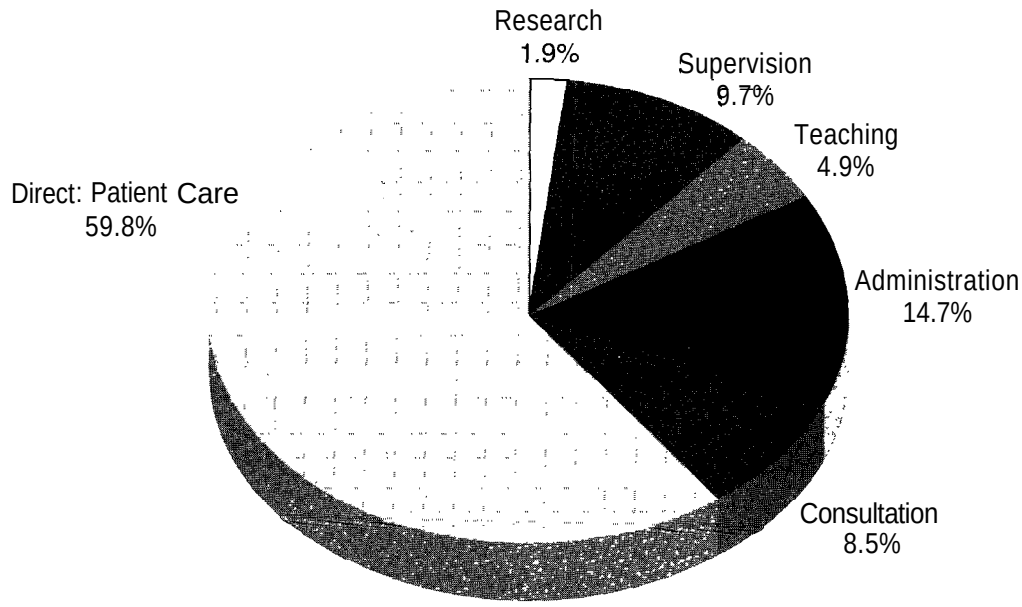
Seventy-two percent of the employed nurses whose highest educational preparation was an associate degree were employed in staff-level positions. The nurses whose highest educational preparation was a diploma were also somewhat more likely to be in staff-level positions than were all employed nurses, 65 percent compared to 62 percent, respectively, Twenty-six percent of employed RNs with master's degrees were in advanced practice nurse positions. Only about 28 percent of those in administrator positions and 9 percent of those in supervisor or head nurse positions were master's or doctorally-prepared (See Appendix A, Table 23).

Functions during Usual Workweek

In 1996, an estimated 67 percent of the employed nurses spent at least 50 percent of their usual workweek in direct patient care activities. Almost half of the nurses, 49 percent, spent at least 75 percent of their time in such activities (See Appendix A, Table 24). While these data generally affirm the findings of the prior studies, they do suggest some change. From the 1977 study to the 1988 one, the proportion of nurses who spent at least half their time in direct patient care activities tended to increase. The 1992 and the 1996 studies, however, showed a decreasing percent of nurses who spent half their time in direct patient care, in comparison to 1988 when the proportion was 71 percent.

In 1996 the average percent of time RNs spent in direct patient care was 59.8 percent (See Chart 14). As could be anticipated from their position levels, nurses with associate degrees averaged about 65.9 percent of their usual workweek in direct patient care activities (See Appendix A, Table 25). Similarly, diploma and baccalaureate nurses also spent a considerable amount of their workweeks in direct patient care activities. Master's and doctorally-prepared nurses exhibited functional patterns fairly suggestive of their position level distribution. Master's degree nurses averaged a little over a third of their time in direct patient care, 24 percent of their time in administration, and 16 percent in teaching. Nurses with doctorates averaged about 43 percent of their time in teaching and almost 26 percent in administration. Doctorally-prepared nurses were the only group that spent significant time in research. However, in 1996, they averaged 9.5 per-

Chart 14. Average Percent of Time in Work Week Spent by RNs in Each Function, March 1996



cent of their usual workweek in research, lower than the 13 percent in 1992 and the 16 percent shown in the 1988 study

Annual Earnings

In March 1996 the average annual earnings of full-time employed registered nurses in their principal nursing positions was $42,071 (See Appendix A, Table 26). Among the various employment settings, RNs employed in nursing education settings had the highest average earnings, $44,197, followed by those working in the hospital setting who averaged $43,496. Registered nurses working in student health services had the lowest average annual earnings, $32,412. Certified registered nurse anesthetists had the highest average earnings, $86,319, among the RNs in all the different employment settings and position levels.

In addition to the variation noted in average earnings of full-time employed RNs by type of employment setting and position, the average annual earnings also varied according to educational preparation. Those whose highest educational preparation was that of an associate degree averaged $38,312 while the doctorally-prepared nurses averaged $52,854 (See Appendix A, Table 27). Since both nurses' earnings and the distribution of the educational preparation of nurses vary according to employment setting, position level, and, as will be shown later in the report, by geographic location, these factors also need to be considered in determining the effect of educational preparation on earnings levels. Looking at the full-time earnings of staff nurses working in the hospital setting across the country, it was found that for those whose highest education was an associate degree, average earnings were $37,936. For those whose highest education was a diploma, the average earnings were $42,447. For the baccalaureate-prepared hospital staff nurse, the average earnings were $41,053.

Almost 16 percent of all the employed nurses held other paid nursing positions in addition to their principal nursing position. As would be expected, the average annual earnings of the latter group were higher than those of the nurses with only one nursing position. For all nurses, regardless if they had one or more than one position and if they worked full- or part-time in their principal position, the average annual earnings from nursing were $38,180. If they had more than one nursing position the average earnings were $44,676. Those with one position averaged $37,326 (See Appendix A, Table 28).

REGISTERED NURSES NOT EMPLOYED IN NURSING

In March 1996, of the 2,558,874 individuals with current licenses to practice as registered nurses, 443.059, or 17.3 percent, were not employed in nursing. Almost 27 percent of the 443,059 RNs were working in non-nursing positions, including some who were actively seeking nursing employment. Eight percent of those not employed in nursing were actively seeking nursing employment (See Appendix A, Table 29).

In contrast to the data in the 1992 study, 70 percent, 311,583 of the 443,059 RNs who were not employed in nursing, had been employed as nurses within the 5-year period preceding 1996 and 1.9 percent had never worked as nurses. The majority of all those who were not employed in nursing at the time of the 1992 study had not worked in nursing for 5 or more years and 1.2 percent had never worked as nurses.

A closer look at the 311,583 RNs who had most recently become inactive in nursing showed that a slightly higher proportion, 10 percent, were actively seeking nursing positions than were all inactive nurses, 8 percent. A somewhat lower proportion of 311,583 nurses, 22.5 percent compared to 26.6 percent of all those who were inactive in nursing, were in non-nursing occupations. The average age of the recent inactive nurses was 51.9 years compared to 53.7 years for all those not employed in nursing.

Nurses Seeking Nursing Employment

The 36,531 registered nurses who were not employed in nursing in March **1996, but were** actively seeking nursing employment, represented 1.4 percent of the 2.559 million RNs in the country. This rate was slightly higher than the 1.3 percent found in the 1992 study but still relatively low compared to other studies in the series.

Those who were actively seeking nursing employment were more likely to have been employed in nursing more recently than other nurses who were

not working in nursing. Eighty-five percent of the job seekers had been employed in nursing less than five years prior to the study with the majority having been employed less than a year before. Of particular interest, though, was the substantial proportion of those who had never worked in nursing who were actively seeking nursing positions. Although RNs who had never been employed in nursing totaled only 8,265, 1.9 percent of the total inactive nurses, 41 percent of them were actively seeking nursing employment.

The majority of the RNs who were looking for nursing positions sought full-time employment, although 43 percent of these would accept either full- or part-time work. About 40 percent had been looking for nursing employment for less than 5 weeks prior to the study. Another 30 percent had been looking for at least 15 weeks (See Appendix A, Table 30).

Nurses Employed in Non-Nursing Occupations

The 117,820 RNs nurses who were employed in non-nursing occupations in March 1996 represented an 18 percent increase over the 99,955 such nurses in 1992 but only slightly more than the 114,064 in March 1988. Included among the 117,820 were 9,061 who were also seeking nursing employment. Those who were employed in non-nursing occupations and were not looking for nursing positions were 4.2 percent of the 2.259 million RN population, the same proportion as in 1992.

The majority of those employed in non-nursing positions were not in health-related occupations; almost 46 percent held health-related positions. Sixty-four percent of the nurses in non-nursing work were full-time workers. However, the nurses in health-related occupations were somewhat more likely to be full-time workers than those in unrelated occupations (See Appendix A, Table 31).

Similar to the data shown in the 1992 study, the two predominant reasons in 1996 for RNs to be in non-nursing positions were that the position's scheduled hours were more convenient and that the position was more professionally rewarding. The third ranking reason was that salaries were better in these positions. Twenty-four percent of RNs in non-nursing positions were concerned about their nursing skills being out-of-date and almost 16 percent were concerned about safety in the health-care working environment (See Appendix A, Table 32).

Inactive Registered Nurses

The largest segment of the nurses who were not employed in nursing were neither looking for nursing positions nor employed in a non-nursing occupation. Similar to what was found in the 1992 study, this inactive segment represented 11.6 percent of all RNs, or 297,768 out of the 2,258,874 RN population.

For the most part the 297,768 inactive nurses came from the older segments of the nurse population. More than half of them (5 1.7 percent) were at least 60 years old. Only 15 percent were under the age of 40. Sixty-eight percent of these younger nurses were married and had preschool age children at home. An additional 18 percent of them were married with older age children (See Appendix A, Table 33).

GEOGRAPHIC AND EMPLOYMENT MOBILITY

The survey instrument provided for the exploration of a number of changes that registered nurses might experience during the course of their careers in nursing. Among these were geographic relocations, movement in or out of work status, changes in employment setting, and the reasons for such changes.

Location of Basic Nursing Education

About 4 percent, or 110,365 out of the 2,258,874 registered nurses, received their basic nursing education outside of the 50 States and the District of Columbia. The racial/ethnic background of the RNs had particular relevance to whether or not they had received their initial nursing educational preparation outside the United States. Only 1.6 percent of the white (nonHispanic) nurses were estimated to have graduated from such programs. However, almost 6 percent of the Hispanic nurses and almost 8 percent of the black (nonHispanic) nurses were in that category, Most of the Asian/Pacific Islanders, 70 percent, had received their basic nursing education outside the United States.

Thirty-six percent of those with current licenses to practice in March 1996 had received their basic

nursing education outside the United States or in a State different from the State in which they were located at the time of the survey. As would be expected, the longer the time between graduation from the basic nursing education program and March 1996, the more likely it was that the nurse was in a different location. Almost 45 percent of the nurses who had graduated 15 or more years prior to the survey were in a different location compared to 19.7 percent of those who had graduated no more than 5 years before.

There were noticeable differences among the graduates from the different types of basic nursing educational programs. Associate degree graduates, no matter how long they were out of school, were least likely to be located in a different State from the State in which their basic nursing education was received. Baccalaureate graduates were most likely to be in a different location (See Appendix A, Table 34).

Residence in March 1995 and 1996

Most of the nurses with current licenses to practice in March 1996 were residents of the same State in which they lived in March 1995. Less than 3 percent had changed their residential State between 1995 and 1996, continuing a downward trend noted in the 1992 study. Between March 1987 and 1988, 4.7 percent had changed their State of residence. However, as was true in the past studies, younger nurses in the 1996 study were far more likely than older ones to have moved their State of residence. Almost 10 percent of the nurses who were less than 25 years old and 6 percent of those in the 25-29 year bracket had changed their resident State. Among the older age groups, the proportion who had done so continually declined. Less than 2 percent of those in the 50 year or older age groups had shifted resident States (See Appendix A, Table 35).

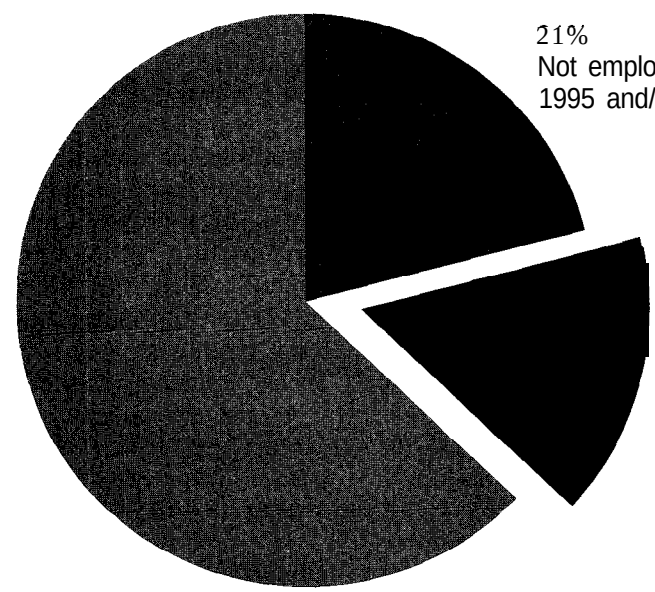
Employment Status in March 1995 and 1996

About 4 percent, or 99,676 of the 2,558,874 RNs, had received their first license to practice as a registered nurse in 1995, or in a some cases, 1996. As would be expected, 64 percent of these nurses were not employed in nursing in March 1995 but, for the most part, were employed in March 1996.

On an overall basis, taking into account all the registered nurses located in this country and licensed to practice as of March 1996, most had the same employ-

Chart 15. Changes in Employment of RNs between 1995 and 1996

Total RN Population: 2,558,874



ment status in March 1995 and March 1996. Only 12.7 percent of them had shifted their employment status (See Appendix A, Table 36). Those who were employed on a full-time basis in March 1995 were most likely to be so employed in March 1996. Only 8 percent of these nurses had shifted their employment status between 1995 and 1996. Among the RNs who were not employed in nursing in March 1995, about 22 percent were employed in March 1996. However, if those who were newly licensed in 1995 or 1996 are excluded, only 11 percent of the RNs not employed in 1995 had become employed in 1996.

Employment Setting Shifts

Registered nurses who were working in a hospital in 1995 were most likely to have also worked in a hospital in 1996. The nurses were less likely to be employed in the same type of setting if it were not a hospital. Nevertheless, the vast majority of nurses in the other settings had also been employed in the same type of employment setting in each of those years (See Appendix A, Table 37).

In order to get more data on job market conditions for registered nurses, the 1996 survey asked the nurses whether they had changed employers or positions between 1995 and 1996 and if so, why As Chart 15 shows, 63 percent of those in the RN population in March 1996 were employed both years in the same position. Sixteen percent of the 2.559 million nurses were employed both years but changed employers and/or positions. Twenty-seven percent of these nurses had done so because of employer reorganization or some element of employer's cost control. On an overall basis, those making changes for such reasons amounted to a little over 5 percent of the 2.559 million RNs in March 1996.

GEOGRAPHIC DISTRIBUTION OF THE REGISTERED NURSE POPULATION

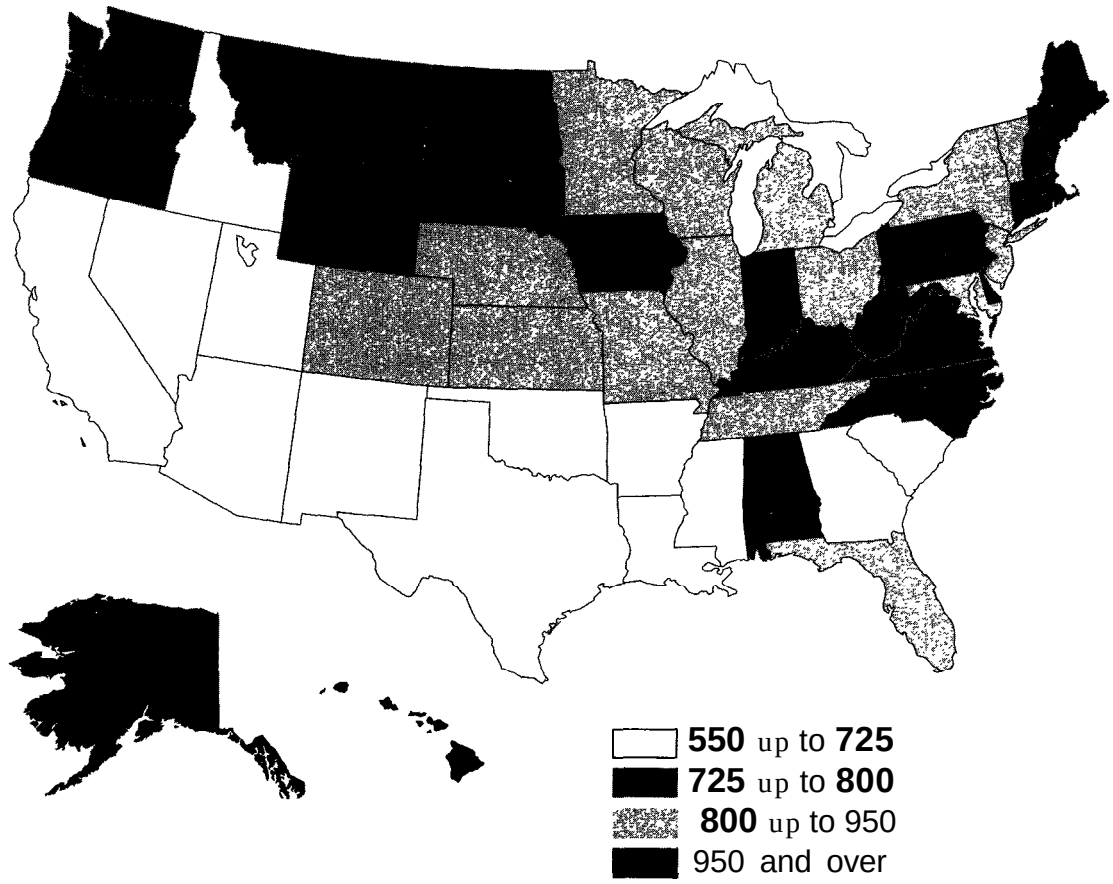
In March 1996, as was true in the prior studies in this series as well, the New England area of the country had the highest concentration of employed nurses in relation to the area's population. Typically, the West South Central area had the lowest concentration. In March 1996, however, the Pacific area with 621 employed RNs per 100,000 population had a lower ratio than the West South Central. In the West South Central area, the ratio of employed RNs per 100,000 nurses was 642. When the population of each area is taken into account, New England with a ratio of 1,103 had 78 percent more nurses in 1996 than did the Pacific. The distribution of the State-by-State ratios of employed nurses per 100,000 population is shown in Chart 16. As can be seen, nursing resources vary across the country. This is also true for the personal and professional characteristics of the RN population.

State-by-State Distribution

The RN population in each State varied from about 4,500 in Wyoming to over 233,000 in California. Seven States had nurse populations of over 100,000 while 8 States and the District of Columbia each had less than 10,000 nurses. (See Appendix A, Table 38). All the jurisdictions except New Hampshire, Vermont and the District of Columbia increased their RN population between March 1992 and March 1996. In general, the southern part of the country and the Mountain region experienced greater gains than did other areas. The Middle Atlantic area, the largest among the nine geographic areas in the country in terms of numbers of nurses, showed the smallest gain. The RN population in the Middle Atlantic area increased only 6.9 percent compared to the overall 14.2 percent increase in the country as a whole. New York, one of the 3 States in the area and the second largest in the country in terms of numbers of nurses, increased its nurse population by only 3.1 percent within the 4-year period between the 1992 and 1996 surveys. Pennsylvania, the third largest State and part of the Middle Atlantic area, increased its RN population by 11.6 percent. California, the largest State, part of the Pacific area, showed a 12.4 percent increase in RN population.

Since the country as a whole had no change in the proportion of the RN population that was employed in nursing, as expected many States experienced little or no change in this proportion between 1992 and 1996. The proportion of employed nurses in the Pacific area decreased from 84.3 percent in 1992 to 79.3 percent in 1996. On the other hand, the employed nurse proportion in the West South Central area increased from 83.6 percent to 87.4 percent. On a State-by-State basis, the rates in 1996 ranged from a low of 76.2 percent in New Jersey to 95.2 percent in North Dakota.

Chart 16. Employed RNs per 100,000 Population, March 1996



As shown in Table 39 of Appendix A, the proportion of the employed nurses who worked on a part-time basis also varied considerably from State to State. Nurses in the southern part of the country were least likely to work on a part-time basis; those in New England were most likely to be part-timers. In New England, 37.7 percent of the RNs employed in nursing were working part-time. In the southern States only about 20 percent of all the 692,000 employed nurses worked on a part-time basis.

Educational Preparation

The variation across States in the highest nursing educational preparation of the RNs employed in nursing is apparent in Table 40 of Appendix A. The northeast States were least likely to have nurses whose highest educational preparation was that of an associate degree and more likely than other parts of the country to have nurses with diplomas as their highest education. On the other hand, the southern and the western parts of the country were more likely to have larger proportions of their employed nurses with associate degrees and lesser proportions with diplomas. Among the nine areas in the country, the Pacific ranked first as the area with the highest proportion of their employed RNs, 47 percent, having at least a baccalaureate degree. The East South Central ranked the lowest with 37 percent of their employed RNs having at least a baccalaureate degree. Three of the States with the highest proportions of nurses with at least a master's degree were located in the New England area. Connecticut, Massachusetts and Rhode Island each had about 13 percent of their nurse supply with master's preparation. Colorado ranked first among the States in the proportion of nurses with at least a master's degree, 14.2 percent.

Metropolitan Areas

About 80 percent of the RNs were located in metropolitan areas in March 1996, a somewhat lower proportion than that found in earlier studies. In 1992, 83.4 percent of the RN population were located in metropolitan areas, compared to about 82 percent in prior studies. In contrast to the opposite findings in earlier studies, RNs who were located in metropolitan areas in 1996 were less likely to be employed in nursing than were those in nonmetropolitan areas, 82.3 percent compared to 84.2 percent.

As would be expected given the distribution of metropolitan areas in the country, the proportion of the registered nurses who were located in metropolitan areas varied from area to area. The highest proportions were found in the Middle Atlantic and Pacific areas and the lowest in the West North Central (See Appendix A, Table 41).

Racial/Ethnic Background

New England and the West North Central areas of the country were least likely to have nurses with racial/ethnic minority backgrounds among their nurse populations. The Pacific area had the highest proportion of minorities in its population, almost 16 percent compared to about 3 percent in the other two areas. The predominant minority nurses in the Pacific area were those with Asian/Pacific Island background, 8.3 percent of the nurse population. In addition to the Pacific area, Asian/Pacific Island nurses were also more likely to be a part of the nurse population in the Middle Atlantic area than in other parts of the country. Black (nonHispanic) nurses were more prevalent among the nurse populations in the southern and in the Middle Atlantic areas than elsewhere. Hispanic nurses, although a relatively small part of any area's population, were more likely to be found among the nurses in the West South Central, Pacific, and Mountain areas (See Appendix A, Table 42).

Age Distribution

Nurses in the East South Central area of the country were more likely to be younger than were those in other parts of the country About 45 percent of the nurses were less than 40 years old compared 37 percent in the country as a whole. Pacific area nurses were the least likely to be in this younger age group, only 30 percent were less than 40 years old. (See Appendix A, Table 43)

Employment Settings

As expected, the predominant employment setting for the nurses in each area was the hospital. The proportion of the nurse supply in each area working in hospitals ranged from 53.3 percent in New England to 63.9 percent in the West South Central. The New England and the West North Central areas were more likely than the other areas to have higher proportions of their nurses employed in nursing homes or other extended care facilities. The East South Central, West South Central and the New England areas each had about 15 percent of their nurse supply employed in community/public health facilities, proportionately more than other areas. Among all the areas, the Pacific area had the highest proportion of its nurse supply working in ambulatory care settings (See Appendix A, Table 44).

Changes in Employers and/or Positions

As pointed out earlier, 16 percent of the 2,558,874 in the RN population were employed in both March 1995 and 1996 but changed employers and/or positions between those dates. Nurses in the southern and Mountain sections of the country were more likely to have done so than those in other parts of the country.

Twenty percent of the 401,599 nurses changed employers and/or positions because of their interest in the another position. This was most likely the case for nurses in New England where 25 percent of the nurses had that as a prime reason for changing jobs. Receiving a promotion was second in order of importance in the list of reasons provided to the nurses in the questionnaire. Nurses in the Middle Atlantic area who changed employers and/or positions were most likely to have that as their prime reason when compared to those in other areas of the country, For the country as a whole, relocation to a different geographic area was the third ranking reason. Among the nurses in each of the nine areas of

the country, nurses in the Mountain area were the most likely to provide that reason (See Appendix A, Table 45).

Average Salaries within Geographic Areas

The average annual salary of full-time employed nurses in staff-level positions in each area was examined to get some indication of variations in salaries around the country. The average salary of these nurses ranged from $33,825 in the West North Central area to $44,781 in the Pacific area (see Appendix A, Table 46).

In the country as a whole, the average salary of a full-time employed staff nurse increased 9.5 percent between March 1992 and 1996. Nurses in the eastern part of the country generally fared better than that. In the western part of the country average salaries were more likely to show lower increases than for the country as a whole. There was really no increase in the average salary for nurses in West North Central area. In 1992, the average salary was $33,641 and in 1996, $33,825.

APPENDIX A

TABLES

Table 1. Registered nurse population by gender, racial/ethnic background, and age group: March 1996

Gender, racial/ethnic background and age group	Total			Employed in nursing			Not employed in nursing		
	Number in sample	Estimated Number	Percent	Number in sample	Estimated Number	Percent	Number in sample	Estimated Number	Percent
Total	29,766	2,558,874	100.0	25,256	2,115,815	100.0	4,510	443,059	100.0
Gender									
Male	1,573	'124,630	4.9	1,455	113,683	5.4	118	10,947	2.5
Female	28,178	2,433,277	95.1	23,789	2,001,399	94.6	4,389	431,878	97.5
Not known	15	967	1/	12	734	1/	3	234	0.1
Racial/ethnic background									
White (non-Hispanic)	27,128	2,294,092	89.7	22,935	1,885,532	89.1	4,193	408,561	92.2
Black (non-Hispanic)	1,022	107,527	4.2	884	91,157	4.3	138	16,370	3.7
Asian/Pacific Islander	810	86,434	3.4	736	79,152	3.7	74	7,283	1.6
American Indian/Alaskan Native	207	11,843	0.5	185	10,510	0.5	22	1,334	0.3
Hispanic	406	40,559	1.6	369	35,804	1.7	37	4,756	1.1
Not known	193	18,417	0.7	147	13,661	0.6	46	4,756	1.1
Age group									
Less than 25	685	58,012	2.3	655	55,362	2.6	30	2,651	0.6
25-29	2,009	170,277	6.7	1,913	162,415	7.7	96	7,862	1.8
30-34	3,483	297,119	11.6	3,226	272,721	12.9	257	24,398	5.5
35-39	4.953	413,931	16.2	4,508	371,238	17.5	445	42,692	9.6
40-44	5,711	465,188	18.2	5,149	413,798	19.6	562	51,390	11.6
45-49	4,459	378,569	14.8	3,994	335,566	15.9	465	43,003	9.7
50-54	3,000	263,635	10.3	2,580	222,022	10.5	420	41,613	9.4
55-59	2,269	201,114	7.9	1,748	150,740	7.1	521	50,374	11.4
60-64	1,602	147,951	5.8	937	81,106	3.8	665	66,846	15.1
65 and over	1,420	145,849	5.7	413	38,562	1.8	1,007	107,287	24.2
Not known	175	17,230	0.7	133	12,287	0.6	42	4,943	1.1

'/Less than 0.1 percent.

Note: Estimated numbers and percents may not add to total because of rounding.

Table 2. Distribution of registered nurses who were employed in a health occupation before entering basic nursing education, by type of health occupation and basic nursing education: March 1996

Health occupation prior to taking basic nursing education	Total			Basic nursing education					
	Number in sample	Estimated Number	Percent	Diploma Number	Diploma Percent	Associate degree Number	Associate degree Percent	Baccalaureate Number	Baccalaureate Percent
Total	10,134	835,281[1]	100.0	177,178	21.2	469,390	56.2	186,972	22.4
Nursing aide	5,872	476,888	100.0	135,493	28.4	203,476	42.7	136,893	28.7
Licensed practical/ vocational nurse	2,823	233,467	100.0	22,716	9.7	192,488	82.4	18,239	7.8
Managerial/clerical in health care setting	386	35,542	100.0	7,380	20.8	20,338	57.2	7,805	22.0
Allied health	569	47,968	100.0	6,532	13.6	27,390	57.1	13,866	28.8
Non-nurse professional	21	2,250	100.0	207	9.2	1,464	65.0	580	25.8
Other	449	38,178	100.0	4,613	12.1	23,880	62.5	9,253	24.2
Not known	14	987	100.0	237	24.0	354	35.9	396	40.1

[1]Includes an estimated 1,288 nurses whose basic nursing education was in a master's degree program, 93 whose basic nursing education was in a doctoral degree program, and 361 whose basic nursing education was not known.

Note: Estimated numbers may not add to total due to rounding.

Table 3. Registered nurses who were licensed practical/vocational nurses before entering basic nursing education program, by type of basic nursing education: March 1996

year of graduation from basic nursing education	Number in sample	Total' Estimated Number	Percent	Diploma Number	Percent	Associate degree Number	Percent	Baccalaureate Number	Percent
Total	3,349	275,184'	100.0	27,806	100.0	223,211	100.0	23,891	100.0
1991 or later	870	66,737	24.3	5,425	19.5	56,339	25.2	4,972	20.8
1986 - 1990	861	68,979	25.1	3,793	13.6	58,579	26.2	6,607	27.6
1981 - 1985	730	60,028	21.8	5,513	19.8	48,813	21.9	5,676	23.8
1980 or earlier	878	78,327	28.5	13,075	47.0	58,729	26.3	6,523	27.3
Not known	10	1,114	0.4	--	--	750	0.3	113	0.5
Average age at graduation									
1991 or later		35.9		36.9		35.7		36.9	
1986 - 1990		34.3		32.7		34.6		32.5	
1981 - 1985		32.5		32.9		32.9		29.0	
1980 or earlier		30.0		27.4		30.9		27.0	

1/ Includes 30,976 nurses who are also included in Table 4.

2/ Includes an estimated 26 nurses whose basic nursing education was in a master's degree program and 250 nurses whose basic education was not known.

Note: Estimated numbers and percents may not add up to total due to rounding.

Table 4. Characteristics of registered nurses with post-high school academic degree before entering basic nursing education, by type of basic nursing education: March 1996

Characteristics	Total			Diploma		Associate degree		Baccalaureate	
	Number in sample	Estimated Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	3,193	278,753'	100.0	35,373	100.0	149,040	100.0	90,456	100.0
Degree obtained before basic nursing education									
Associate degree	1,394	125,598	45.1	16,599	46.9	75,652	50.8	32,946	36.4
Baccalaureate	1,592	136,043	48.8	17,305	48.9	63,494	42.6	52,233	57.7
Master's degree	157	13,339	4.8	682	1.9	7,922	5.3	4,459	4.9
Doctorate	18	1,285	0 5	103	0.3	682	0.5	302	0.3
Not known	32	2,489	0.9	684	1.9	1,289	0.9	516	0.6
Major field of study before basic nursing education									
Biological/physical science	456	37,579	13.5	4,228	12.0	14,897	10.0	17,152	19.0
Business/management	336	29,018	10.4	3,304	9.3	19,189	12.9	6,525	7.2
Education	357	31,155	11.2	4,112	11.6	19,636	13.2	-7,188	7.9
Liberal art	789	70,008	25.1	9,419	26.6	37,115	24.9	22,500	24.9
Social science	343	30,042	10.8	2,531	7.2	17,004	11.4	10,081	11.1
Health related	774	68,409	24.5	9,726	27.5	34,362	23.1	23,556	26.0
Other	106	9,206	3.3	1,658	4.7	5,173	3.5	2,375	2.6
Not known	32	3,336	1.2	394	1.1	1,665	1.1	1,078	1.2
Year of graduation from basic nursing education									
1991 or later	1,123	93,970	33.7	8,295	23.5	54,183	36.4	30,052	33.2
1986 - 1990	598	53,348	19.1	5,433	15.4	30,098	20.2	17,131	18.9
1981 - 1985	652	58,045	20.8	5,945	16.8	33,836	22.7	17,822	19.7
1980 or earlier	811	72,345	26.0	15,487	43.8	30,329	20.3	25,253	27.9
Not known	9	1,045	0.4	212	0.6	594	0.4	199	0.2
Average age at graduation by year of graduation									
1991 or later		34.4		33.8		35.3		33.2	
1986 - 1990		32.3		30.0		33.6		30.9	
1981 - 1985		30.8		29.6		32.5		28.2	
1980 or earlier		27.8		25.5		30.0		26.8	

"Includes an estimated 3,177 nurses whose basic nursing education was in a master's degree program, 271 nurses whose basic nursing education was in a doctoral degree program and 436 nurses whose basic nursing education was not known.

Note: Estimated numbers and percents may not add to total due to rounding.

Table 5. Year of graduation from basic nursing education and the average age at graduation for the registered nurse population by type of basic nurse education: March 1996

Year of graduation from basic nursing education program	Number in sample	Estimated total' Number	Percent	Average age at graduation	Diploma Number	Percent	Average age at graduation
Total	29,766	2,558,874	100.0	26.1	910,618	100.0	22.6
1991 or later	5,152	417,580	16.3	31.7	36,109	4.0	31.1
1986 - 1990	4,000	338,468	13.2	29.1	40,285	4.4	26.4
1981 - 1985	4,521	385,167	15.1	27.3	57,248	6.3	25.0
1980 or earlier	16,028	1,411,606	55.2	23.3	775,530	85.2	21.9
Not known	65	6,054	0.2	--	1,536	0.2	--

Year of graduation from basic nursing education program	Associate degree Number	Percent	Average age at graduation	Baccalaureate Number	Percent	Average age at graduation
Total	965,059	100.0	30.2	675,685	100.0	24.7
1991 or later	259,421	26.9	33.5	120,526	17.8	28.0
1986 - 1990	189,876	19.7	31.4	107,334	15.9	25.9
1981 - 1985	196,812	20.4	30.0	130,417	19.3	24.2
1980 or earlier	317,005	32.8	26.9	316,074	46.8	23.2
Not known	1,945	0.2	--	1,335	0.2	--

1/ Includes 5,229 nurses with basic nursing education in master's degree program, 309 in a doctoral program and 1,974 with an unknown basic nursing education.

Note: Estimated numbers and percents may not add to total due to rounding.

Table 6. Registered nurse population by marital status and employment status: March 1996

Marital status	Total			Employed in nursing full-time			Employed in nursing part-time			Not employed in nursing		
	Number in sample	Estimated Number	Percent	Number in sample	Estimated Number	Percent	Number in sample	Estimated Number	Percent	Number in sample	Estimated Number	Percent
Total	29,766	2,558,874	100.0	18,031	1,510,318	100.0	7,225	605,497	100.0	4,510	443,059	100.0
Married	21,636	1,849,542	72.3	12,209	1,016,780	67.3	6,055	506,957	83.7	3,372	325,805	73.5
With children under 6 only	2,523	217,039	a.5	1,307	111,196	7.4	951	81,024	13.4	265	24,819	5.6
With children 6 and over only	8,891	753,218	29.4	5,430	453,135	30.0	2,543	210,363	34.7	918	89,720	20.3
Uith children both age groups	2,439	208,027	8.1	1,183	96,358	6.4	941	al,623	13.5	315	30,046	6.8
No children at home	7,708	663,959	25.9	4,252	352,386	23.3	1,597	131,827	21.8	1,859	179,746	40.6
No information on children	75	7,298	0.3	37	3.704	0.2	23	2,119	0.3	15	1,475	0.3
Widowed/divorced separated	5,194	449,410	17.6	3,570	297,112	19.7	769	64,351	10.6	a55	87,947	19.8
With children under 6 only	148	12,598	0.5	109	9,467	0.6	28	2,554	0.4	11	576	0.1
With children 6 and over only	1,975	170,756	6.7	1,550	133,242	a.8	274	22,590	3.7	151	14,924	3.4
With children both age groups	248	18,513	0.7	188	13,097	0.9	39	3,438	0.6	21	1‘979	0.4
No children at home	2,803	245,709	9.6	1,714	140,594	9.3	423	35,243	5.8	666	69.872	15.8
No information on children	20	1,834	0.1	9	713	1/	5	526	0.1	6	595	0.1
Never married	2,844	251,484	9.8	2,200	192,147	12.7	377	31,771	5.2	267	27,565	6.2
No information on marital status	92	8,438	0.3	52	4,279	0.3	24	2,418	0.4	16	1,741	0.4

'/Less than 0.1 percent.

Note: Estimated numbers and percents may not add to total due to rounding.

Table 7. Distribution of registered nurses according to total family income expected in 1996, by marital status and employment status: March 1996

Marital status and family income	Number in sample	Estimated total nurses	Employed in nursing			Not employed in nursing
			Total	full-time	part-time	
Total	29,766	2,558,874	2,115,815	1,510,318	605,497	443,059
$ 15,000 or less	500	44,980	11,615	1,451	10,164	33,366
$ 15,001 - $ 25,000	1,008	86,646	38,391	13,993	24,398	48,256
$ 25,001 - $ 35,000	2,889	221,473	169,195	118,623	50,572	52,278
$ 35,001 - $ 50,000	6,676	543,241	471,474	364,295	107,179	71,767
$ 50,001 - $ 75,000	8,627	736,240	669,335	487,257	182,078	66,905
$ 75,001 - $100,000	4,787	436,515	395,699	293,911	101,788	40,816
$100,001 - $150,000	2,266	213,269	174,717	122,444	52,273	38,552
More than 8150,000	890	85,417	51,999	28,197	23,802	33,418
Not known	2,123	191,092	133,391	80,147	53,244	57,701
Married	21,636	1,849,542	1,523,737	1,016,780	506,957	325,805
$ 15,000 or less	100	8,171	1,738	342	1,396	6,433
$ 15,001 - $ 25,000	360	29,785	9,951	2,374	7,577	19,834
$ 25,001 - $ 35,000	1,104	83,677	51,619	26,676	24,942	32,058
$ 35,001 - $ 50,000	3,615	282,439	225,674	143,342	82,332	56,765
$ 50,001 - 8 75,000	7,165	593,717	535,373	365,557	169,816	58,343
$ 75,001 - $100,000	4,552	412,857	374,461	273,687	100,773	38,396
$100,001 - $150,000	2,187	205,679	169,033	117,850	51,183	36,646
More than 8150,000	867	83,377	50,509	27,051	23,458	32,868
Not known	1,686	149,842	105,379	59,902	45,477	44,462

Note: Estimated numbers may not add to total due to rounding.

Table 8. Registered nurse population by basic and highest nursing-related education: March 1996

Highest nursing-related education	Total'			Basic nursing education								
				Diploma			Associate degree			Baccalaureate		
	Number in sample	Estimated Number	Percent	Number in sample	Estimated Number	Percent	Number in sample	Estimated Number	Percent	Number in sample	Estimated Number	Percent
Total	29,766	2,558,874	100.0	10,006	910,618	100.0	11,476	965,059	100.0	8,199	675,685	100.0
Diploma	7,667	696,804	27.2	7,667	696,804	76.5	--	--	--	--	--	--
Associate degree	9,698	812,438	31.7	56	5,793	0.6	9,641	806,466	83.6	--	--	--
Baccalaureate in nursing	8,866	735,697	28.8	1,020	89,459	9.8	1,153	98,236	10.2	6,693	548,002	81.1
Baccalaureate in related field	668	63,810	2.5	455	42,557	4.7	212	21,229	2.2	--	--	--
Master's in nursing	1,935	165,510	6.5	471	43,536	4.8	301	23,250	2.4	1,105	93,566	13.8
Master's in related field	722	66,467	2.6	271	26,370	2.9	153	14,230	1.5	297	25,822	3.8
Doctorate in nursing	88	7,695	0.3	30	2,804	0.3	8	946	0.1	45	3,635	0.5
Doctorate in related field	104	8,771,	0.3	36	3,295	0.4	8	702	0.1	59	4,661	0.7
Not known	18	1,682	0.1	--	--	--	--	--	--	--	--	--
Total employed in nursing	25,256	2,115,815	100.0	7,611	667,568	100.0	10,438	868,392	100.0	7,146	574,962	100.0
Diploma	5,745	502,959	23.8	5,745	502,959	75.3	--	--	--	--	--	--
Associate degree	8,820	731,613	34.6	43	4,581	0.7	8,777	727,032	83.7	--	--	--
Baccalaureate in nursing	7,737	625,741	29.6	826	69,652	10.4	1,065	90,170	10.4	5,846	465,918	al.0
Baccalaureate in related field	519	47,173	2.2	344	30,449	4.6	174	16,700	1.9	--	--	--
Master's in nursing	1,688	141,432	6.7	400	35,900	5.4	280	21,476	2.5	965	80,413	14.0
Master's in related field	570	51,727	2.4	197	18,870	2.8	129	11,715	1.3	241	21,095	3.7
Doctorate in nursing	82	7,317	0.3	28	2,599	0.4	8	946	0.1	51	3,463	0.6
Doctorate in related field	84	6,983	0.3	28	2,558	0.4	5	352	2/		4,073	0.7
Not known	11	870	2/	--	--	--	--	--	--	--	--	--
Total not employed in nursing	4,510	443,059	100.0	2,395	243,050	100.0	1,038	96,667	100.0	1,053	100,723	100.0
Diploma	1,922	193,845	43.8	1,922	193,845	79.8	--	--	--	--	--	--
Associate degree	878	80,826	18.2	13	1.213	0.5	864	79,434	82.2	--	--	--
Baccalaureate in nursing	1,129	109,956	24.8	194	19,806	8.1	88	8,065	8.3	a47	82,084	al.5
Baccalaureate in related field	149	16,637	3.8	111	12,108	5.0	38	4,529	4.7	--	--	--
Master% in nursing	247	24,079	5.4	71	7,636	3.1	21	1,774	1.8	140	13,153	13.1
Master's in related field	152	14,740	3.3	74	7,499	3.1	24	2,514	2.6	54	4,726	4.7
Doctorate in nursing	6	377	0.1	2	205	0.1	--	--	--	4	172	0.2
Doctorate in related field	20	1,788	0.4	8	738	0.3	3	350	0.4	8	587	0.6
Not known	7	812	0.2	--	--	--	--	--	--	--	--	--

1/ Includes 5,229 nurses uhose basic nursing education was in a master's degree, 309 in a doctoral degree program and 1,974 nurses whose basic nursing education program was not known.

2/ Less than 0.1 percent

Notes: Estimated numbers and percents may not add up to total because of rounding.

Table 9. Primary focus of post-RN master's and doctoral degrees: March 1996

Primary focus	Master's degree'			Doctoral degree'		
	Number in sample	Estimated Number	Percent	Number in sample	Estimated Number	Percent
Total	2,776	242,143	100.0	187	16,156	100.0
Clinical practice	1,463	124,469	51.4	20	1,962	12.1
Education	566	49,412	20.4	67	6,060	37.5
Supervision/administration	602	54,451	22.5	15	1,254	7.8
Research	5	263	0.1	70	5,497	34.0
Public Health	22	2,034	0.8	1	177	1.1
Law	1	177	0.1	3	317	2.0
Psychology	3	370	0.2	1	23	0.1
Other	97	8,993	3.7	7	713	4.4
Not known	17	1,974	0.8	3	153	1.0

"Includes degrees in nursing or nursing-related areas.

Note: Estimated numbers and percents may not add to total due to rounding.

Table 10. Current enrollment of registered nurses in nursing-related academic degree educational programs, by employment status and student status: March 1996

Employment and student status	Number in sample	Estimated Number	Percent
Total	2,396	206,155	100.0
Employed in nursing full-time			
Total	1,716	149,523	72.5
Full-time student	,205	16,441	8.0
Part-time student	1,508	132,882	64.5
Student status not known	3	200	0.1
Employed in nursing part-time			
Total	530	44,086	21.4
Full-time student	164	11,367	5.5
Part-time student	365	32,705	15.9
Student status not known	1	14	1/
Not employed in nursing			
Total	150	12,547	6.1
Full-time student	71	4,792	2.3
Part-time student	79	7,755	3.8
Student status not known	--	--	--

"Less than 0.1 percent.

Note: Estimated numbers and percents may not add to total because of rounding.

Table 11. Financial resources used for tuition and fees by registered nurses currently enrolled in nursing related academic degree education program by type of degree for which studying: March 1996

Source of funding	Total'			Baccalaureate			Master's			Doctorate		
	Number in sample	Estimated Number	Percent	Number in sample	Estimated Number	Percent	Number in sample	Estimated Number	Percent	Number in sample	Estimated Number	Percent
Total	2,396	206,155'	100.0	1,119	96,429	100.0	913	76,659	100.0	105	9,495	100.0
Personal resources	1,897	161,745	78.5	865	71,958	74.6	727	61,523	80.3	86	7,766	81.8
Employer reimbursement plan	1,083	98,462	47.8	542	50,247	52.1	401	34,690	45.3	29	2,644	27.8
Federal traineeship, scholarship or grant	137	11,429	5.5	28	2,524	2.6	82	6,504	8.5	12	1,373	14.5
Federally assisted loan	214	15,847	7.7	82	6,688	6.9	108	7,475	9.8	7	488	5.1
State or local government loan or scholarship	78	5,690	2.8	23	1,926	2.0	40	2,639	3.4	5	580	6.1
Non-government scholarship, loan or grant	95	7,681	3.7	36	2,686	2.8	47	3,889	5.1	6	587	6.2
University teaching or or research fellowship	30	2,344	1.1	--		_	15	1,282	1.7	12	874	9.2
Other sources	16	1,579	0.8	5	385	0.4	7	817	1.1	1	113	1.2
Source not known	4	244	0.1	—	—	_	2	98	0.1	--	—	--

"Source of fundings may add to more than the total because more than one source may be named.

"Includes 547 nurses who were studying for an associate degree, 22,847 who were studying in some other type of educational program, and 178 for whom the degree was not known.

Table 12. Distribution of advanced practice nurses by national certification, state recognition and employment status: March 1996

Type of advanced practice nurse and employment status	Estimated Total Number	Percent	National certification Number	Percent	State Board of Nursing recognition Number	Percent
Clinical nurse specialist						
Total	53,799	100.0	12,679	100.0	8,602	100.0
Employed in nursing	48,673	90.5	12,016	94.8	8,052	93.6
With position title	11,317	21.0	4,775	37.7	3,124	36.3
Without position title	37,357	69.4	7,241	57.1	4,928	57.3
Not employed in nursing	5,125	9.5	663	5.2	550	6.4
Nurse practitioner						
Total	63,191	100.0	40,101	100.0	34,528	100.0
Employed in nursing	55,730	88.2	37,423	93.3	32,229	93.3
With position title	32,844	52.0	26,898	67.1	23,946	69.4
Without position title	22,886	36.2	10,525	26.2	8,283	24.0
Not employed in nursing	7,461	11.8	2,678	6.7	2,299	6.7
Both clnical nurse specialist and nurse practitioner						
Total	7,802	100.0	5,530[1]	100.0	4,469	100.0
Employed in nursing	7,802	100.0	5,530	100.0	4,469	100.0
With position title	5,129[2]	65.7	3,939	71.2	3,495	78.2
Without position title	2,673	34.3	1,591	28.8	974	21.8
Not employed in nursing	--	--	--	--	--	--
Nurse anesthetist						
Total	30,386	100.0	25,658	100.0	14,288	100.0
Employed in nursing	26,342	86.7	23,373	91.1	13,343	93.4
With position title	21,485	70.7	21,240	82.8	12,121	84.8
Without position title	4,857	16.0	2,133	8.3	1,222	8.6
Not employed in nursing	4,044	13.3	2,285	8.9	946	6.6
Nurse midwife						
Total	6,534	100.0	5,745	100.0	3,536	100.0
Employed in nursing	5,337	81.7	4,861	84.6	3,368	95.2
With position title	4,107	62.8	4,107	71.5	2,879	81.4
Without position title	1,230	18.8	754	13.1	489	14.5
Not employed in nursing	1,197	18.3	885	15.4	168	4.8

[1] 3,294 nurses had national certification as nurse practitioners only, 839 had certification as clinical nurse specialists only, and 1,398 had both nurse practitioner and clinical nurse specialist certifications.

[2] 3,939 nurses had the nurse practitioner position title and 1,190. the clinical nurse specialist position title.

Note: Estimated numbers and percents may not add to total due to rounding.

Table 13. Employment setting of primary positions of registered nurses employed in nursing: March 1996

Employment setting	Number in sample	Estimated Number	Estimated Percent
Total	25,256	2,115,815	100.0
Hospital	15,084	1,270,870	60.1
Non-federal short term hospital	12,770	1,083,087	51.2
Non-federal long term hospital	758	66,963	3.2
Non-federal psychiatric hospital	562	45,677	2.2
Federal government hospital	878	66,153	3.1
Other hospital	116	8,990	0.4
Nursing home/extended care facility	2,075	170,856	8.1
Nursing home unit in hospital	180	13,306	0.6
Other nursing home	1,728	141,406	6.7
Facility for mentally retarded	109	11,015	0.5
Other extended care facility	58	5,129	0.2
Nursing education	598	48,918	2.3
LPLN/LVN program	62	4,828	0.2
Diploma program	33	3,011	0.1
Associate degree program	167	13,483	0.6
Baccalaureate or higher degree	305	24,210	1.1
Other nursing education	31	3,387	0.2
Community/public health	3,331	278,141	13.1
State health department	286	20,053	0.9
State mental health department	61	5,895	0.3
City or county health department	406	34,328	1.6
Combination nursing services	49	4,196	0.2
Visiting nursing service	660	58,682	2.8
Other home health agency (non-hospital based)	1,145	94,246	4.5
Community mental health facility	129	12,194	0.6
Community/Neighborhood health center	158	12,523	0.6
Planned parenthood/ family health center	45	4,024	0.2
Day care center	25	2,123	0.1
Rural Health Center	64	3,557	0.2
Retirement community center	18	1,429	0.1
Hospice	193	17,429	0.8
Substance abuse out-patient facility	12	1,079	0.1
Other	80	6,385	0.3
Student health service	733	62,932	3.0
Board of Education (Public Schools)	542	47,600	2.2
Private or parochial schools	50	4,654	0.2
College or university	122	9,222	0.4
Other school health service	19	1,455	0.1
Occupational health	279	21,575	1.0
Private industry	221	17,086	0.8
Government	40	3,250	0.2
Other occupational health	18	1,239	0.1
Ambulatorv Care	2,179	178,930	8.5
Physician based practices:			
Solo practices	391	30,892	1.5
Partnership	207	16,701	0.8
Group practice	479	37,787	1.8
Freestanding clinic	130	9,710	0.5
Ambulatory surgical center (non-hospital based)	219	19,168	0.9
Nurse-based practices:			
Solo practice	38	3,022	0.1
Partnership	6	601	1/
Group practice	15	1,300	0.1
Freestanding clinic	38	3,419	0.2
Mixed professional group	241	19,003	0.9
Health maintenance organization	222	21,219	1.0
Dental practice	8	877	1/
Dialysis unit	48	4,503	0.2
Other ambulatory care setting	137	10,729	0.5
Other	966	82,635	3.9
Central or regional federal agency	39	2,496	0.1
State board of nursing	6	396	1/
Nursing or health association	14	1,021	1/
Health planning agency	21	1,525	0.1
Prison or jail	128	11,911	0.6
Insurance company	279	22,870	1.1
Nurse entrepreneur	56	5,208	0.2
Private home duty	25	2,342	0.2
Other	398	34,866	0.6
Not known	11	957	1/

"Less than 0.1 percent.

Note: Estimated numbers and percents may not add to total due to rounding.

Table 14. Type of hospital work unit where hospital-employed registered nurses spent more than half their direct patient care time, by employment status: March 1996

Type of work unit	Total		Employment status			
			Full-time		Part-time	
	Number	Percent	Number	Percent	Number	Percent
Total	1,148,709	100.0	804,913	100.0	343,796	100.0
Intensive care bed unit	195,581	17.0	144,844	18.0	50,737	14.8
Step-down, transitional bed unit	78,269	6.8	56,725	7.0	21,544	6.3
General/speciality bed unit	403,139	35.1	275,598	34.2	127,541	37.1
Outpatient department	77,437	6.7	52,614	6.5	24,823	7.2
Operating room	103,835	9.0	81,590	10.1	22,244	6.5
Post operative recovery room	36,696	3.2	23,029	2.9	13,667	4.0
Labor/delivery room	79,258	6.9	47,912	6.0	31,345	9.1
Emergency room	89,300	7.8	64,420	8.0	24,880	7.2
Home health care	14,991	1.3	9,310	1.2	5,681	1.7
Hospice unit	2,176	0.2	1,379	0.2	797	0.2
Specialized laboratories	11,146	1.0	7,253	0.9	3,893	1.1
Chemical dependency unit	3,020	0.3	1,391	0.2	1,628	0.5
Other specific area	22,697	2.0	17,164	2.1	5,534	1.6
No specific area	27,201	2.4	18,595	2.3	8,606	2.5
Not known	3,965	0.3	3,088	0.4	a77	0.3

Note: Estimated numbers and percents may not add up to total because of rounding

Table 15. **Type of patient treated in hospital inpatient unit and outpatient department where registered nurses spent more than half their direct patient care time, by employment status: March 1996**

Type of patient treated	Total		Employment status			
			Full-time		Part-time	
	Number	Percent	Number	Percent	Number	Percent
Total	754,425	100.0	529,781	100.0	224,645	100.0
Chronic care	26,045	3.5	21,413	4.0	4,632	2.1
Coronary care	138,479	18.4	104,003	12.7	34,476	15.3
Neurological	17,774	2.4	14,103	6.1	3,671	1.6
Newborn	50,040	6.6	32,380		17,660	7.9
Obstetrics/gynecology	32,712	4.3	18,563	3.5	14,149	6.3
Orthopedic	23,298	3.1	15,136	2.9	8,162	3.6
Pediatric	52,329	6.9	31,890	6.0	20,438	9.1
Psychiatric	56,642	7.5	40,008	7.6	16,634	7.4
Rehabilitation	25,523	3.4	16,662	3.1	8,861	3.9
Medical/surgical	292,338	38.7	207,847	39.2	84,491	37.6
Multiple units	38,277	5.1	27,173	5.1	11,104	4.9
Not known	969	0.1	602	0.1	367	0.2

Note: Estimated numbers and percents may not add up to total because of rounding

Table 16. Registered nurses employed in each employment setting by employment status and average annual hours scheduled: March 1996

Employment setting	Estimated total			Employed full-time			Employed part-time		
	Estimated number	Percent	Average annual hburs scheduled	Estimated number	Percent	Average annual hours scheduled	Estimated number	Percent	Average annual hours scheduled
Total	2,115,815	100.0	1,742	1,510,318	71.4	1,994	605,497	28.6	1,102
Hospital	1,270,870	100.0	1,763	907,130	71.4	1,999	363,740	28.6	1,165
Nursing home, extended care facility	170,856	100.0	1,757	124,627	72.9	2,030	46,229	27.1	1,011
Nursing education	48,918	100.0	1,527	37,746	77.2	1,753	11,173	22.8	781
Community/ public health	278,141	100.0	1,778	201,256	72.4	2,039	76,886	27.6	1,067
Student health service	62,932	100.0	1,311	44,243	70.3	1,519	18,689	29.7	785
Occupational health	21,575	100.0	1,855	16,875	78.2	2,099	4,700	21.8	901
Ambulatory care (non-nurse)	170,589	100.0	1,670	106,737	62.6	2,034	63,852	37.4	1,051
Ambulatory care(nurse)	8,341	100.0	1,723	6,068	72.7	1,982	2,273	27.3	1,053
Other	82,635	100.0	1,847	65,134	78.8	2,077	17,501	21.2	950
Not known	957	100.0	1,755	504	52.6	2,019	454	47.4	1,431

Note: Estimated numbers may not add to total due to rounding.

Table 17. Comparison between average scheduled hours per week of employed registered nurses in their principal position and average actual hours worked during the week beginning March 18, 1996 by employment setting

Employment setting	Employed full-time		Employed part-time	
	Scheduled hours/week	Actual hours/week	Scheduled hours/week	Actual hours/week
Total	39.4	41.8	23.1	24.9
Hospital	39.2	41.5	23.8	25.6
Nursing home, extended care facility	39.9	43.2	21.7	23.7
Nursing education	39.8	42.9	21.3	23.1
Community/public health	39.8	42.4	22.4	24.4
Student health service	36.4	38.8	23.0	23.3
Occupational health	41.0	42.6	21.7	23.7
Ambulatory care setting (non-nurse)	39.8	41.6	21.9	23.4
Ambulatory care (nurse)	39.7	42.2	21.5	27.2
Other	40.5	43.2	21.7	22.9
Not known	39.1	40.4	27.5	27.5

Table 18. Employed registered nurses by employment setting and age group: March 1996

Employment setting	Number in sample	Estimated total	Age group: Under 25	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and over
Total	25,256	2,115,815[1]	55,362	162,415	272,721	371,238	413,798	335,566	222,022	150,740	81,106	38,562
Hospital	15,084	1,270,870	43,010	115,750	189,500	246,848	246,570	184,359	117,500	72,054	36,024	10,597
Nursing home, extended care facility	2,075	170,856	5,631	13,782	16,388	23,426	27,006	24,657	20,704	16,828	12,035	9,989
Nursing education	598	48,918	357	558	2,752	6,459	8,456	10,667	7,414	6,604	3,774	1,635
Community/public health	3,331	278,141	2,588	17,901	34,197	41,051	57,071	49,457	32,260	23,097	12,578	6,859
Student health service	733	62,932	199	882	3,446	6,509	12,948	13,233	10,225	7,476	5,273	2,256
Occupational health	279	21,575	137	507	2,149	2,989	3,650	3,770	2,886	3,004	1,332	1,149
Ambulatory care	2,179	178,930	2,862	9,756	16,948	29,828	40,016	34,074	19,766	14,095	6,685	4,459
Other	966	82,635	577	3,278	7,101	13,774	18,067	15,150	11,199	7,544	3,405	1,618
Not known	11	957	--	--	241	354	14	199	68	37	--	--

[1]Includes 12,287 nurses for whom age was not known.

Note: Estimated numbers may not add up to total due to rounding.

Table 19. Employment setting and highest nursing-related educational preparation of registered nurses employed in nursing: March 1996

Employment setting	Number in sample	Estimated total Number	Percent	Highest nursing-related educational preparation: Diploma Number	Percent	Associate degree Number	Percent	Baccalaureate Number	Percent	Master's Number	Percent	Doctorate Number	Percent
Total	25,256	2,115,815[1]	100.0	502,959	23.8	731,613	34.6	672,914	31.8	193,159	9.1	14,300	0.7
Hospital	15,084	1,270,870	100.0	283,880	22.3	466,022	36.7	428,220	33.7	90,257	7.1	2,025	0.2
Nursing home, extended care facility	2,075	170,856	100.0	51,931	30.4	74,688	43.7	38,177	22.3	5,584	3.3	363	0.2
Nursing education	598	48,918	100.0	2,335	4.8	2,415	4.9	7,438	15.2	27,185	55.6	9,546	19.5
Community/public health	3,331	278,141	100.0	64,495	23.2	92,903	33.4	92,385	33.2	27,489	9.9	829	0.3
Student health service	733	62,932	100.0	16,630	26.4	12,026	19.1	24,840	39.5	9,394	14.9	43	0.1
Occupational health	279	21,575	100.0	7,449	34.5	4,847	22.5	7,305	33.9	1,974	9.2	--	--
Ambulatory care	2,179	178,930	100.0	54,457	30.4	53,827	30.1	47,990	26.8	21,579	12.1	903	0.5
Other	966	82,635	100.0	21,562	26.1	24,567	29.7	26,380	31.9	9,456	11.4	591	0.7
Not known	11	957	100.0	218	22.8	318	33.2	180	18.8	241	25.1	--	--

'/Includes an estimated 870 nurses for whom highest nursing-related educational preparation was not known.

Note: Estimated numbers may not add to total due to rounding.

Table 20. Employment setting of registered nurses by work basis: March 1996

Employment setting	Total			Employee of agency			Temporary agency			Self employed		
	Number in sample	Estimated Number	Percent	Number in sample	Estimated Number	Percent	Number in sample	Estimated Number	Percent	Number in sample	Estimated Number	Percent
Total	25,256	2,115,815[1]	100.0	24,366	2,044,239	96.6	360	28,971	1.4	508	40,844	1.9
Hospital	15,084	1,270,870	100.0	14,755	1,247,286	98.1	207	14,822	1.2	108	7,653	0.6
Nursing home, extended care facility	2,075	170,856	100.0	2,024	165,568	96.9	13	1,577	0.9	37	3,636	2.1
Nursing education	598	48,918	100.0	587	48,084	98.3	2	62	0.1	8	611	1.2
Community/public health	3,331	278,141	100.0	3,129	260,996	93.8	88	7,825	2.8	113	9,274	3.3
Student health service	733	62,932	100.0	710	61,338	97.5	10	1,025	1.6	12	512	.8
Occupational health	279	21,575	100.0	244	18,330	85.0	7	880	4.1	28	2,366	11.0
Ambulatory care	2,179	178,930	100.0	2,078	170,766	95.4	10	651	0.4	91	7,514	4.2
Other	966	82,635	100.0	830	71,156	86.1	23	2,130	2.6	109	9.039	10.9
Not known	11	957	100.0	9	717	74.9	--	--	--	2	241	25.1

"Includes an estimated 1,760 nurses for whom work basis was not known.

Note: Estimated numbers may not add to total due to rounding.

Table 21. Position titles in primary nursing jobs for registered nurses employed in nursing: March 1996

Position title	Number in sample	Estimated number	Percent
Total	25,256	2,115,815	100.0
Administrator	1,369	112,134	5.3
Administrator or assistant, facility/agency	397	32,658	1.5
Administrator or assistant, nursing	881	72,313	3.4
Dean, director or assistant, nursing education	91	7,163	0.3
Certified nurse anesthetist	308	21,827	1.0
Clinical nurse specialist	394	35,620	1.7
Consultant	308	27,020	1.3
Head nurse or assistant	1,445	123,231	5.8
Head nurse or assistant head nurse	631	53,788	2.5
Nurse manager	814	69,444	3.3
Instructor	882	73,084	3.5
Inservice education director	153	13,180	0.6
Instructor	515	42,833	2.0
Professor, assistant/associate professor	214	17,071	0.8
Nurse clinician	331	30,396	1.4
Nurse practitioner/midwife	563	44,904	2.1
Nurse midwife	59	4,836	0.2
Nurse practitioner	504	40,068	1.9
Private duty nurse	158	15,947	0.8
Researcher	134	12,665	0.6
Staff nurse	15,737	1,309,596	61.9
Charge nurse	2,408	189,543	9.0
Public health nurse	475	35,504	1.7
School nurse	561	48,707	2.3
Staff nurse	11,693	984,123	46.5
Team leader	335	31,487	1.5
No position title	265	20,232	1.0
Supervisor or assistant	1,131	95,451	4.5
Other	2,475	211,518	10.0
Case manager	827	72,696	3.4
Discharge planner	53	5,400	0.3
Infection control nurse	86	7,254	0.3
Insurance reviewer	120	8,777	0.4
Nurse coordinator	530	45,574	2.2
Outcomes manager	18	1,662	0.1
Patient care coordinator	290	23,015	1.1
Quality assurance nurse	262	22,838	1.1
Other	289	24,303	1.1
Not known	21	2,422	0.1

Note: Estimated numbers and percents may not add to totals due to rounding.

Table 22. Employment setting and type of position of employed registered nurses: March 1996

Employment setting	Total	Administrator or assistant	Certified nurse anesthetist	Clinical nurse specialist	Consultant	Head nurse or assistant	Instructor
Total	2,115,815[1]	112,134	21,827	35,620	27,020	123,231	73,084
Hospital	1,270,870	30,071	19,183	21,441	4,303	74,177	17,750
Nursing home, extended care facility	170,856	32,183	--	697	2,736	12,716	5,942
Nursing education	48,918	5,271	--	216	156	444	39,991
Community/public health	278,141	26,665	--	4,770	4,759	12,505	2,449
Student health service	62,932	878	--	455	862	1,220	1,899
Occupational health	21,575	2,051	--	174	1,687	1,478	36
Ambulatory care	178,930	9,881	2,598	6,383	2,700	16,541	1,053
Other	82,635	5,133	46	1,483	9,774	4,151	3,965
Not known	957		--	--	42	--	--

Employment setting	Nurse clinician	Nurse practitioner/midwife	Private duty nurse	Researcher	Staff nurse	Supervisor or assistant	Other
Total	30,396	44,904	15,947	12,665	1,309,596	95,451	211,518
Hospital	18,546	11,589	1,000	5,485	949,758	34,764	81,756
Nursing home, extended care facility	618	1,046	1,062	163	71,966	24,871	16,278
Nursing education	--	181	--	160	1,833	--	666
Community/ public health	4,792	9,455	11,572	735	114,501	23,145	62,636
Student health service	326	2,602	62	531	51,590	701	1,806
Occupational health	487	623	96	223	8,124	1,788	4,807
Ambulatory care	4,822	18,817	104	2,206	93,308	5,721	14,568
Other	767	393	2,050	3,160	18,405	4,462	28,845
Not known	37	199	--	--	111	--	156

[1] Includes an estimated 2,422 nurses for whom the type of position was not known.

Note: Estimated numbers may not add to total due to rounding.

Table 23. Type of position and highest nursing-related educational preparation of registered nurses employed in nursing: March 1996

Type of position	Number in sample	Estimated total Number	Percent	Highest nursing-related educational preparation: Diploma Number	Diploma Percent	Associate degree Number	Associate degree Percent	Baccalaureate Number	Baccalaureate Percent	Master's Number	Master's Percent	Doctorate Number	Doctorate Percent
Total	25,256	2,115,815[1]	100.0	502,959	23.8	731,613	34.6	672,914	31.8	193,159	9.1	14,300	0.7
Administrator or assistant	1,369	112,134	100.0	25,872	23.1	25,463	22.7	28,915	25.8	28,479	25.4	3,405	3.0
Consultant	308	27,020	100.0	5,930	21.9	4,869	18.0	9,838	36.4	5,971	22.1	334	1.2
Supervisor or assistant	1,131	95,451	100.0	27,083	28.4	36,841	38.6	26,061	27.3	5,286	5.5	180	0.2
Instructor	882	73,084	100.0	6,764	9.3	7,539	10.3	19,826	27.1	31,206	42.7	7,749	10.6
Head nurse or assistant	1,445	123,231	100.0	28,575	23.2	36,256	29.4	43,660	35.4	14,572	11.8	168	0.1
Staff nurse	15,737	1,309,596	100.0	328,853	25.1	524,340	40.0	423,207	32.3	32,310	2.5	611	2/
Nurse practitioner/midwife	563	44,904	100.0	4,131	9.2	3,205	7.1	9,095	20.3	27,783	61.9	517	1.2
Clinical nurse specialist	394	35,620	100.0	5,104	14.3	7,112	20.0	7,996	22.4	15,054	42.3	353	1.0
Nurse clinician	331	30,396	100.0	6,689	22.0	8,889	29.2	10,665	35.1	3,914	12.9	239	0.8
Certified nurse anesthetist	308	21,827	100.0	5,795	26.5	3,053	14.0	6,017	27.6	6,731	30.8	17	0.1
Researcher	134	12,665	100.0	2,356	18.6	2,196	17.3	5,587	44.1	2,033	16.1	493	3.9
Private duty nurse	158	15,947	100.0	4,518	28.3	6,572	41.2	3,890	24.4	966	6.1	--	--
Other	2,475	211,518	100.0	50,720	24.0	64,425	30.5	77,337	36.6	18,673	8.8	234	0.1
Not known	21	2,422	100.0	568	23.4	855	35.3	819	33.8	180	7.4	--	--

"Includes an estimated 870 nurses for whom highest nursing-related educational preparation was not known.

*'Less than 0.1 percent.

Note: Estimated numbers may not add to total due to rounding.

Table 24. Distribution of employed registered nurses by percentage of time spent during usual work week in each functional area: March 1996

Percentage of time	Administration: Number in sample	Administration: Estimated Number	Administration: Estimated Percent	Consultation: Number in sample	Consultation: Estimated Number	Consultation: Estimated Percent	Direct patient care: Number in sample	Direct patient care: Estimated Number	Direct patient care: Estimated Percent
Total	25,256	2,115,815	100.0	25,256	2,115,815	100.0	25,256	2,115,815	100.0
None	13,625	1,137,427	53.8	13,080	1,093,695	51.7	3,657	318,392	15.0
1-24	5,736	476,633	22.5	9,537	793,808	37.5	2,382	200,106	9.5
25-49	2,676	222,665	10.5	1,601	137,962	6.5	2,044	170,056	8.0
50-74	1,982	154,258	7.3	604					
75-100	1,319	113,455	5.4	406	43,508	2.1	4,506	374,662	17.7
					35,465	1.7	12,549	1,041,222	49.2
Not known	118	11,378	0.5	118	11,378	0.5	118	11,378	0.5

Percentage of time	Research: Number in sample	Research: Estimated Number	Research: Estimated Percent	Supervision: Number in sample	Supervision: Estimated Number	Supervision: Estimated Percent	Teaching: Number in sample	Teaching: Estimated Number	Teaching: Estimated Percent
Total	25,256	2,115,815	100.0	25,256	2,115,815	100.0	25,256	2,115,815	100.0
None	21,540	1,797,681	85.0	14,375	1,210,452	57.2	18,771	1,578,970	74.6
1-24	3,198	270,331	12.8	7,101					
25-49	172	14,986	0.7	2,035	588,385	27.8	5,016	412,419	19.5
50-74	90	8,067	0.4	1,062	168,896	8.0	520	42,926	2.0
75-100	138	13,373	0.6	565	88,010	4.2	311	25,776	1.2
					48,694	2.3	520	44,346	2.1
Not known	118	11,378	0.5	118	11,378	0.5	118	11,378	0.5

Note: Estimated numbers and percent may not add up to total due to rounding.

Table 25. Average percent of time in work week spent by employed registered nurses in each function by highest educational preparation: March 1996

Highest educational preparation	Average time spent in Administration	Consultation	Direct patient care
Total	14.7	8.5	59.8
Diploma	14.5	8.0	62.7
Associate degree	11.9	7.1	65.9
Baccalaureate	14.9	9.4	59.1
Masters	24.0	11.8	35.2
Doctorate	25.5	7.2	10.2
Not known	13.3	8.2	70.5

Highest educational preparation	Average time spent in Research	Supervision	Teaching
Total	1.9	9.7	4.9
Diploma	1.5	10.0	2.8
Associate degree	1.5	10.2	2.9
Baccalaureate	2.2	9.4	4.5
Masters	3.3	8.9	16.2
Doctorate	9.5	4.6	42.8
Not known	1.9	4.9	3.1

Table 26. Average annual earnings of registered nurses employed full time in their principal nursing position by employment setting and type of position: March 1996

Employment setting	Total'	Administrator or assistant	Consultant	Supervisor or assistant	Instructor	Head nurse or assistant	Staff nurse	Nurse practi-tioner/midwife
Total	$42,071	852,213	848,569	$41,950	$42,407	$46,262	$38,567	$54,182
Hospital	43,496	62,923	45,232	46,562	47,168	49,481	40,097	56,731
Nursing home, extended care facility	37,458	43,051	2/	34,901	38,343	38,395	33,230	2/
Nursing education	44,197	55,697	2/	2/	42,107	2/	2/	2/
Community/public health	40,699	50,957	45,441	40,911	2/	43,154	36,564	49,463
Student health service	32,412		2/	2/	2/	2/	30,690	2/
Occupational health	42,670	50.53:	2/	2/	2/	2/	36,566	2/
Ambulatory care	40,867	50,701	2/	41,026	2/	38,586	32,571	56,074
Other	42,845	55,912	51,011	42,319	37,671	44,744	39,209	2/

Employment setting	Clinical nurse specialist	Nurse clinician	Certified nurse anesthetist	Researcher
Total	$47,160	842,137	$86,319	843,420
Hospital	48,905	43,809	85,800	43,255
Nursing home, extended care facility	2/	2/	2/	2/
Nursing education	2/	2/	2/	2/
Community/public health	43,194	37,752	2/	2/
Student health service	2/	2/	2/	2/
Occupational health	2/	2/	2/	2/
Ambulatory care	44,926	41,354	2/	2/
Other	2/	2/	2/	2/

"Includes all nurses not separately identified as well as those identified separately.

2/ Too few to compute average salary.

Table 27. **Average annual earnings of nurses employed full-time by type of position and highest nursing educational preparation: March 1996**

Type of position	Total[1]	Highest nursing-related educational preparation				
		Diploma	Associate degree	Bacca-laureate	Master's	Doctorate
Total	842,071	$41,804	$38,312	842,709	$52,854	$54,850
Administrator or assistant	52,213	47,323	44,101	50,984	62,777	68,011
Consultant	48,569	42,315	48,134	50,455	53,799	2/
Supervisor or assistant	41,950	42,711	38,497	43,610	53,423	2/
Instructor	42,407	39,443	37,292	41,106	42,788	48,981
Head nurse or assistant	46,262	43,551	42,686	48,546	52,934	2/
Staff nurse	38,567	39,685	36,763	39,790	44,352	2/
Nurse practitioner/midwife	54,182	54,592	50,558	51,461	55,014	2/
Clinical nurse specialist	47,160	46,519	42,344	44,547	51,089	2/
Nurse clinician	42,137	40,157	39,077	42,622	49,209	2/
Certified nurse anesthetist	86,319	85,668	95,131	84,984	83,864	2/
Researcher	43,420	2/	2/	42,283	2/	2/

"Includes all nurses not separately identified as well as those identified separately.

2/Too few cases to compute average salary.

Table 28. Distribution of employed registered nurses with added positions by employment status in their principal position and average total earnings: March 1996

Positions held	Total				Employment status in principal position					
					Full-time			Part-time		
	Nunber in sample	Estimated Nunber	Percent	Average total earnings	Estimated Number	Percent	Average total earnings	Estimated Number	Percent	Average total earnings
Total	25,256	2,115,815[1]	100.0	$38,180	1,510,318	100.0	$43,179	605,497	100.0	824,893
Principal and secondary positions	3,948	328,316	15.5	$44,676	216,348	14.3	$50,953	111,967	18.5	$31,424
Principal position only	21,263	1,783,639	84.3	$37,236	1,290,808	85.5	$42,138	492,830	81.4	$23,755

"Includes an estimated 3,861 nurses for whom number of positions held was not known.

Table 29. Distribution of registered nurses not employed in nursing, by length of time since last worked as a nurse and whether or not nurse was seeking nursing position or had other occupation: March 1996

Length of time since worked	Total			Seeking nursing employment		Had other occupation	
	Number in sample	Estimated Number	Percent	Number	Percent	Number	Percent
Total	4,510	443,059	100.0	36,531[1]	100.0	117,820[1]	100.0
Less than a year	045	71,892	16.2	16,354	44.0	12,195	10.4
1 - 4 years	2,471	239,691	54.1	14,626	40.0	58,051	49.3
5 - 9 years	723	80,033	18.1	1,723	4.7	28,198	23.9
IO - 19 years	227	26,392	6.0	233	0.6	10,572	9.0
20 Years or more	109	12,156	2.7	--	--	2,777	2.4
Never worked	82	8,265	1.9	3,426	9.4	4,368	3.7
Not known	53	4,629	1.0	169	0.5	1,658	1.4

"Includes an estimated 9,061 nurses who were both seeking a nursing position and had other occupation.

Note: Estimated numbers and percents may not add to total due to rounding.

Table 30. Registered nurses actively seeking employment in nursing by type of employment sought and number of weeks looking: March 1996

Type of employment and weeks looking	Number in sample	Estimated Number	Estimated Percent
Total	401	36,531	100.0
Type of employment			
Full-time	121	11,008	30.1
Part-time	182	16,006	43.8
Either	86	8,302	22.7
Not known	12	1,214	3.3
Number of weeks looking			
Less than a week	67	5,186	14.2
1 - 4 weeks	100	9,316	25.5
5 - 9 weeks	53	5,395	14.8
10 - 14 weeks	49	3,995	10.9
15 - 34 weeks	71	7,276	19.9
35 weeks or more	44	3,709	10.2
Not known	17	1,654	4.5

Note: Estimated numbers and percents may not add to total due to rounding.

Table 31. Type of employment of registered nurses employed in non-nursing occupations: March 1996

Type of employment	Number in sample	Estimated Number	Estimated Percent
Total	1,190	117,820	100.0
Health related occupation	534	53,684	45.6
Full-time	396	39,225	33.3
Part-time	130	13,882	11.8
Not known	8	577	0.5
Non-health related occupation	651	63,406	53.8
Full-time	383	36,343	30.8
Part-time	264	26,643	22.6
Not known	4	419	0.4
Not known	5	731	0.6

Note: Estimated numbers and percents may not add to total due to rounding.

Table 32. Reasons registered nurses have occupation other than nursing: March 1996

Reasons for other occupation	Number in sample	Estimated Number[1]	Estimated Percent[1]
Total	1,190	117,820[2]	100.0
Difficult to find a position	111	10,507	8.9
Hours are more convenient in other position	485	47,112	40.0
Better salaries available in current type of position	370	36,898	31.3
Concern for safety in health care environment	185	18,279	15.5
Inability to practice nursing on a professional level	113	11,047	9.4
Find current position more rewarding professionally	579	55,760	47.3
Nursing skills are out of date	282	28,316	24.0
Other	284	28,724	24.4

[1] Numbers and percents do not add to totals because nurses may have given more than one reason.

[2] Includes an estimated 1,100 nurses whose reasons for having an occupation other than nursing were not known.

Table 33. Age group and marital status of nurses who were not employed at all and not seeking nursing employment: March 1996

Marital status	Total		Age group							
			Less than 40		40-49		SO-59		60 and over	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	297,768'	100.0	44,690	100.0	42,377	100.0	52,303	100.0	154,016	100.0
Married	219,534	73.7	41,468	92.8	37,752	89.1	44,856	85.8	93,440	60.7
Uith children under 6 only	16,209	5.4	14,215	31.8	1,696	4.0	--	--	78	0.1
Uith children 6 and over only	51,026	17.1	7,919	17.7	25,287	59.7	11,307	21.6	6,172	4.0
Uith children of all ages	22,601	7.6	16,366	36.6	5,405	12.8	428	0.8	245	0.2
No children at home	128,486	43.1	2,621	5.9	5,271	12.4	33,074	63.2	86,487	56.2
No information on children	1,214	0.4	347	0.8	93	0.2	46	0.1	458	0.3
Widowed, divorced, separated	62,329	20.9	1,752	3.9	3,044	7.2	4,684	9.0	51,354	33.3
With children under 6 only	287	0.1	170	0.4	70	0.2	--	--	47	2/
With children 6 and over only	8,287	2.8	928	2.1	1,359	3.2	627	1.2	5,338	3.5
With children of all ages	677	0.2	165	0.4	--	--	243	0.5	269	0.2
No children at home	52,802	17.7	489	1.1	1,557	3.7	3,814	7.3	45,481	29.5
No information on children	276	0.1	--	--	57	0.1	--	--	219	0.1
Never married	14,789	4.9	1,395	3.1	1,383	3.3	2,428	4.6	9,085	5.9
No information on marital status	1,258	0.4	75	0.2	199	0.5	335	0.6	138	0.1

"Includes 4,382 nurses for whom age was not known.

2/ Less than 0.1 percent.

Note: Estimated numbers and percents may not add to total due to rounding.

Table 34. Comparison between State of Location'of registered nurses as of March 1996 and State of graduation by type of basic nursing education and number of years since graduation: March 1996

Number of years since graduation from basic nursing education program	Total[2]			Basic nursing education					
				Diploma		Associate degree		Baccalaureate	
	Number in sample	Estimated Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total[3]	29,670	2,549,641	100.0	907,622	100.0	961,772	100.0	673,775	100.0
Located in same State	17,740	1,629,960	63.9	511,132	56.3	734,712	76.4	381,612	56.6
Located in different State[4]	11,930	919,681	36.1	396,491	43.7	227,061	23.6	292,163	43.4
5 years or less	5,972	483,928	100.0	42,103	100.0	302,061	100.0	137,858	100.0
Located in same State	4,542	388,495	80.3	30,878	73.3	257,990	85.4	98,164	71.2
Located in different State[4]	1,430	95,433	19.7	11,225	26.7	44,071	14.6	39,694	28.8
6-10 years	4,085	349,323	100.0	44,571	100.0	189,662	100.0	114,207	100.0
Located in same State	2,743	249,943	71.6	29,657	66.5	150,499	79.4	69,623	61.0
Located in different State[4]	1,342	99,380	28.4	14,914	33.5	39,163	20.6	44,584	39.0
11-15 years	4,514	383,156	100.0	59,641	100.0	186,891	100.0	136,073	100.0
Located in same State	2,796	255,092	66.6	41,361	69.3	136,460	73.0	77,271	56.8
Located in different State[4]	1,718	128,064	33.4	18,280	30.7	50,431	27.0	58,801	43.2
16-25 years	7,562	645,348	100.0	209,029	100.0	246,084	100.0	188,926	100.0
Located in same State	4,116	387,605	60.1	123,106	58.9	167,371	68.0	96,578	51.1
Located in different State[4]	3,446	257,742	39.9	85,923	41.1	78,712	32.0	92,348	48.9
26 years or more	7,494	683,471	100.0	550,886	100.0	35,544	100.0	95,416	100.0
Located in same State	3,517	345,970	50.6	285,584	51.8	20,939	58.9	39,299	41.2
Located in different State[4]	3,977	337,501	49.4	265,301	48.2	14,605	41.1	56,117	58.8

"State of location is the State in which employed, if employed in nursing or State of residence, if not employed in nursing.

"Includes those whose basic education was a master's or a doctoral degree or whose basic education was not known.

[3/] Excludes an estimated 9,233 nurses whose state of graduation was not known.

[4/] Includes those who graduated from a school located in a different State or a foreign country.

Note: Estimated numbers and percents may not add to total due to rounding.

Table 35. Comparison between resident States in 1995 and 1996 for the registered nurse population, by age group: March 1996

Age group	Number in sample	Estimated total Number	Percent	Resident State same in 1995 and 1996 Number	Percent	Resident State different in 1996 than in 1995[1] Number	Percent
Total	29,766	2,558,874[2]	100.0	2,482,076	100.0	73,781	100.0
Less than 25 years	685	58,012	2.3	52,507	2.1	5,505	7.5
25 - 29	2,009	170,277	6.7	159,582	6.4	10,595	14.4
30 - 34	3,483	297,119	11.6	284,326	11.5	11,909	16.1
35 - 39	4,953	413,931	16.2	401,125	16.2	12,697	17.2
40 - 44	5,711	465,188	18.2	453,735	18.3	11,453	'15.5
45 - 49	4,459	378,569	14.8	368,932	14.9	9,454	12.8
50 - 54	3,000	263,635	10.3	259,458	10.5	3,869	5.2
55 - 59	2,269	201,114	7.9	197,479	8.0	3,610	4.9
60 - 64	1,602	147,951	5.8	145,198	5.8	2,688	3.6
65 years and over	1,420	145,849	5.7	144,081	5.8	1,767	2.4
Not known	175	17,230	0.7	15,652	0.6	234	0.3

"Residence in 1995 may be in a different State or a foreign country.

"Includes 3,017 nurses for whom residence was not known in 1995.

Note: Estimated numbers and percents may not add to total due to rounding.

Table 36. Comparison of employment status of registered nurse population between 1995 and 1996: March 1996

Employment status in 1996	Employment status in 1995: Employed full-time			Employed part-time			Not employed in nursing		
	Number in sample	Estimated Number	Percent	Number in sample	Estimated Number	Percent	Number in sample	Estimated Number	Percent
Total'	17,625	1,475,061	100.0	7,174	602,233	100.0	4,803	466,763	100.0
Employed full-tine	16,258	1,364,738	92.5	898	69,921	11.6	775	66,220	14.2
Employed part-time	924	71,165	4.8	5,800	493,740	82.0	456	36,907	7.9
Not employed-nursing	443	39,158	2.7	476	38,572	6.4	3,572	363,636	77.9

"Excludes an estimated 14,817 nurses whose employment status was not known in 1995.

Note: Estimated numbers and percents may not add to total due to rounding.

Table 37. Percent distribution of employed registered nurses in each employment setting in 1996 by employment setting in 1995: March 1996

Employment setting	Total in 1996 Estimated Number in Sample	Number	Percent	Employment setting in 1995 Hospital	Nursing home/ extended care	Nursing education	Community/ public health'	Ambulatory care	Other	Not employed
Total	25,256	2,115,815[2]	100.0	58.6	7.5	2.1	15.9	7.5	3.0	4.9
Hospital	15,084	1,270,870	100.0	92.2	0.8	0.2	1.1	0.4	0.2	4.5
Nursing home, extended care facility	2,075	170,856	100.0	6.4	81.2	3/	2.3	0.4	0.6	8.5
Nursing education	598	48,918	100.0	7.6	1.6	83.8	2.4	0.4	0.2	3.0
Community/public health'	4,343	362,649	100.0	7.7	1.6	0.2	83.9	0.9	0.7	4.3
Ambulatory care setting	2,179	178,930	100.0	9.0	0.9	0.2	2.6	81.5	0.5	4.9
Other	966	82,635	100.0	10.2	2.0	0.6	10.7	2.8	67.9	5.9

"Includes student health and occupational health services.

"Includes an estimated 3,568 nurses for whom employment setting was unknown for 1996 and/or 1995 and 8,498 for whom employment status was not known for 1995.

3/ Less than 0.1 percent

Table 38. Registered nurse population in each State and area by activity status: March 1996

State and area	Number in sample	Total	Employed in nursing Number	Employed in nursing Percent	Not employed in nursing Number	Not employed in nursing Percent	Employed nurses per 100,000 population'
United States	29,766	2,558,874	2,115,815	82.7	443,059	17.3	798
New England	2,744	176,951	147,266	83.2	29.685	16.8	1,103
Connecticut	467	41,296	33,690	al.6	7,606	la.4	1,029
Maine	438	15,507	13,089	84.4	2,418	15.6	1,053
Massachusetts	663	87,995	72,509	82.4	15,485	17.6	1,190
New Hampshire	398	12,938	11,443	88.4	1,495	11.6	985
Rhode Island	358	12,915	11,169	86.5	1,746	13.5	1,128
Vermont	420	6,300	5,366	85.2	934	14.8	911
Middle Atlantic	2,979	443,846	355,920	80.2	87.926	19.8	931
New Jersey	594	88,404	7,407	76.2	20,997	23.8	a44
New York	1,151	195,293	165,667	84.8	29,626	15.2	911
Pennsylvania	1,234	160,149	122,846	76.7	37,303	23.3	1,019
South Atlantic	4.968	460,460	378,166	82.1	82,294	17.9	794
Delaware	331	9,538	7,586	79.5	1,952	20.5	1,046
District of Columbia	198	9,948	9,287	93.4	661	6.6	1,710
Florida	981	148,046	115,201	77.8	32,845	22.2	800
Georgia	633	62,526	52,323	83.7	10,204	16.3	712
Maryland	565	48,789	42,704	87.5	6,085	12.5	a42
North Carolina	640	69,231	58,180	84.0	11,051	16.0	794
South Carolina	622	29,135	25,651	88.0	3,484	12.0	693
Virginia	605	66,436	52,727	79.4	13,709	20.6	790
West Virginia	393	16,810	14,507	86.3	2,303	13.7	794
East South Central	1,950	141,705	125,913	88.9	15,792	11.1	778
Alabama	531	37,188	32,294	86.8	4,894	13.2	756
Kentucky	450	32,427	29,048	89.6	3,379	10.4	748
Mississippi	482	20,979	19,040	90.8	1,939	9.2	701
Tennessee	487	51,111	45,530	89.1	5,581	10.9	856
West South Central	2,381	215,200	187,984	87.4	27,216	12.6	642
Arkansas	470	20,890	17,148	82.1	3,742	17.9	683
Louisiana	499	33,969	31,255	92.0	2,714	a.0	718
Oklahoma	509	23,583	19,188	al.4	4,395	18.6	581
Texas	903	136,757	120,393	88.0	16,364	12.0	629

(Continued)

Table 38. (cont.) Registered nurse population in each State and area by activity status: March 1996

State and area	Number in sample	Total	Employed in nursing Number	Employed in nursing Percent	Not employed in nursing Number	Not employed in nursing Percent	Employed nurses per 100,000 population[1]
East North Central	3,295	452,080	371,020	82.1	81,060	17.9	851
Illinois	770	124,332	102,182	82.2	22,151	17.8	863
Indiana	518	56,420	45,546	80.7	10,874	19.3	780
Michigan	627	99,676	78,310	78.6	21,366	21.4	816
Ohio	862	118,612	99,781	84.1	18,832	15.9	893
Wisconsin	518	53,040	45,202	85.2	7,838	14.8	876
West North Central	4,067	198,952	172,839	86.9	26,113	13.1	936
Iowa	644	32,303	28,210	87.3	4,093	12.7	989
Kansas	572	24,452	20,733	84.8	3,719	15.2	806
Minnesota	718	50,909	44,015	86.5	6,894	13.5	945
Missouri	589	58,096	49,939	86.0	8,157	14.0	932
Nebraska	467	16,909	15,288	90.4	1,621	9.6	925
North Dakota	582	7,248	6,902	95.2	346	4.8	1,072
South Dakota	495	9,035	7,752	85.8	1,283	14.2	1,059
Mountain	4,028	137,739	113,524	82.4	24,215	17.6	704
Arizona	538	40,313	31,913	79.2	8,400	20.8	721
Colorado	604	37,289	30,827	82.7	6,461	17.3	806
Idaho	465	8,627	6,932	80.4	1,695	19.6	583
Montana	492	8,417	6,774	80.5	1,643	19.5	771
Nevada	430	11,336	9,290	81.9	2,046	18.1	580
New Mexico	482	13,185	11,362	86.2	1,823	13.8	663
Utah	529	14,059	12,641	89.9	1,418	10.1	632
Wyoming	488	4,512	3,784	83.9	729	16.1	787
Pacific	3,354	331,941	263,183	79.3	68,758	20.7	621
Alaska	449	6,651	5,913	88.9	738	11.1	974
California	1,340	233,404	180,325	77.3	53,079	22.7	566
Hawaii	414	10,236	8,678	84.8	1,557	15.2	733
Oregon	521	29,239	25,340	86.7	3,899	13.3	791
Washington	630	52,411	42,927	81.9	9,484	18.1	776

[1] Population data were based on July 1, 1996 estimates of resident population of States from Census Bureau Press Release CB96-224.

Note: Estimated numbers and percents may not add to total due to rounding.

Table 39. Supply of registered nurse in each State and area according to whether employed on a full-time or part-time basis: March 1996

State and area	Total			Employed full-time		Employed part-time		Estimated Full-time Equivalent'
	Number in sample	Estimated Number	Percent	Estimated Number	Percent	Estimated Number	Percent	
United States	25,256	2,115,815	100.0	1,510,318	71.4	605,497	28.6	1,813,067
New England	2,360	147,266	100.0	91,698	62.3	55,568	37.7	119,482
Connecticut	383	33,690	100.0	23,146	68.7	10,544	31.3	28,418
Maine	376	13,089	100.0	8,829	67.5	4,260	32.5	10,959'
Massachusetts	551	72,509	100.0	42,598	58.7	29,912	41.3	57,554
New Hampshire	364	11,443	100.0	7,542	65.9	3,901	34.1	9,492
Rhode Island	312	21,169	100.0	6,741	60.4	4,428	39.6	8,955
Vermont	374	5,366	100.0	2,843	53.0	2,524	47.0	4,104
Middle Atlantic	2,383	355,920	100.0	248,309	69.8	107,611	30.2	302,115
New Jersey	450	67,407	100.0	47,308	70.2	20,099	29.8	57,357
New York	973	165,667	100.0	118,482	71.5	47,185	28.5	142,075
Pennsylvania	960	122,846	100.0	82,519	67.2	40,327	32.8	102,683
South Atlantic	4,174	378,166	100.0	290,472	76.8	87,694	23.2	334,319
Delaware	285	7,586	100.0	4,930	65.0	2,657	35.0	6,258
District of Columbia	187	9,287	100.0	6,943	74.8	2,344	25.2	8,115
Florida	758	115,201	100.0	90,535	78.6	24,666	21.4	102,868
Georgia	533	52,323	100.0	40,832	78.0	11,491	22.0	46,577
Maryland	487	42,704	100.0	30,580	71.6	12,124	28.4	36,642
North Carolina	539	58,180	100.0	45,880	78.9	12,300	21.1	52,030
South Carolina	566	25,651	100.0	20,730	80.8	4,921	19.2	23,191
Virginia	478	52,727	100.0	38,781	73.5	13,946	26.5	45,754
West Virginia	341	14,507	100.0	11,261	77.6	3,246	22.4	12,884
East South Central	1,744	125,913	100.0	102,851	81.7	23,062	18.3	114,382
Alabama	466	32,294	100.0	26,853	83.2	5,441	16.8	29,574
Kentucky	404	29,048	100.0	22,276	76.7	6,772	23.3	25,662
Mississippi	440	19,040	100.0	16,851	88.5	2,190	11.5	17,945
Tennessee	434	45,530	100.0	36,871	81.0	8,660	19.0	41,201
West South Central	2,057	187,984	100.0	160,480	85.4	27,504	14.6	174,232
Arkansas	392	17,148	100.0	13,636	79.5	3,512	20.5	15,392
Louisiana	461	31,255	100.0	27,170	86.9	4,085	13.1	29,213
Oklahoma	414	19,188	100.0	15,899	82.9	3,288	17.1	17,544
Texas	790	120,393	100.0	103,774	86.2	16,618	13.8	112,084

(Continued)

Table 39.(cont.) Supply of registered nurse in each State and area according to whether employed on a full-time or part-time basis: March 1996

State and area	Total			Employed full-time		Employed part-time		Estimated Full-time Equivalent'
	Number in sample	Estimated Number	Percent	Estimated Number	Percent	Estimated Number	Percent	
East North Central	2,707	371,020	100.0	246,082	66.3	124,939	33.7	308,551
Illinois	630	102,182	100.0	67,444	66.0	34,737	34.0	84,813
Indiana	419	45,546	100.0	32,543	71.5	13,003	28.5	39,045
Michigan	493	78,310	100.0	53,808	68.7	24,501	31.3	66,059
Ohio	726	99,781	100.0	65,881	66.0	33,899	34.0	82,831
Wisconsin	439	45,202	100.0	26,405	58.4	18,798	41.6	35,803
Uest North Central	3,608	172,839	100.0	115,007	66.5	57,832	33.5	143,923
Iowa	566	28,210	100.0	18,646	66.1	9,564	33.9	23,428
Kansas	490	20,733	100.0	15,673	75.6	5,060	24.4	18,203
Minnesota	623	441015	100.0	24,015	54.6	20,000	45.4	34,015
Missouri	508	49,939	100.0	36,214	72.5	13,725	27.5	43,077
Nebraska	425	15,288	100.0	10,343	67.7	4,945	32.3	12,815
North Dakota	553	6,902	100.0	4,455	64.5	2,447	35.5	5,678
South Dakota	443	7,752	100.0	5,661	73.0	2,091	27.0	6,706
Mountain	3,436	113,524	100.0	81,574	71.9	31,950	28.1	97,549
Arizona	431	31,913	100.0	23,584	73.9	8,329	26.1	27,749
Colorado	504	30,827	100.0	21,843	70.9	8,984	29.1	26,335
Idaho	381	6,932	100.0	4,560	65.8	2,372	34.2	5,746
Montana	399	6,774	100.0	4,411	65.1	2,364	34.9	5,592
Nevada	375	9.290	100.0	7,572	81.5	1,717	18.5	8,431
New Mexico	431	11,362	100.0	8,285	72.9	3,077	27.1	9,823
Utah	484	12,641	100.0	8,436	66.7	4,204	33.3	10,539
Uyoming	431	3,784	100.0	2,882	76.2	901	23.8	3,333
Pacific	2,787	263,183	100.0	173,847	66.1	89,337	33.9	218,515
Alaska	402	5,913	100.0	3,989	67.5	1.924	32.5	4,951
California	1,041	180,325	100.0	124,542	69.1	55,783	30.9	152,434
Hawaii	365	8,678	100.0	7,047	81.2	1,632	18.8	7,862
Oregon	459	25,340	100.0	15,112	59.6	10,228	40.4	20,226
Uashington	520	42,927	100.0	23,156	53.9	19,770	46.1	33,041

'Nurses working full-time plus one-half of working part-time.

Note: Estimated numbers and percents may not add to total due to rounding.

Table 40. Employed nurses in each State and area, by highest nursing-related educational preparation: March 1996

State and area	Number in Sample	Total	Highest educational preparation							
			Diploma		Associate degree		Baccalaureate		Master's and doctorate	
			Number	Percent	Number	Percent	Number	Percent	Number	Percent
United States	25,256	2,115,815[1]	502,959	23.8	731,613	34.6	672,914	31.8	207,459	9.8
New England	2,360	147,266	45,571	30.9	35,998	24.4	47,674	32.4	17,989	12.2
Connecticut	383	33.690	12,308	36.5	6,682	19.8	10,291	30.5	4,409	13.1
Maine	376	13,089	4,192	32.0	4,175	31.9	3,801	29.0	921	7.0
Massachusetts	551	72,509	21,475	29.6	17,166	23.7	24,036	33.1	9,833	13.6
New Hampshire	364	11,443	3,245	28.4	3,062	26.8	4,177	36.5	925	8.1
Rhode Island	312	11,169	2,987	26.7	2,816	25.2	3,862	34.6	1,504	13.5
Vermont	374	5,366	1,365	25.4	2,096	39.1	1,509	28.1	397	7.4
Middle Atlantic	2,383	355,920	106,759	30.0	100,326	28.2	111,335	31.3	37,501	10.5
New Jersey	450	67,407	19,361	28.7	18,417	27.3	23,643	35.1	5,986	8.9
New York	973	165,667	38,160	23.0	56,911	34.4	50,873	30.7	19,723	11.9
Pennsylvania	960	122,846	49,238	40.1	24,997	20.3	36,819	30.0	11,792	9.6
South Atlantic	4,174	378,166	88,809	23.5	142,581	37.7	109,728	29.0	36,701	9.7
Delaware	285	7,586	2,293	30.2	2,245	29.6	2,247	29.6	801	10.6
District of Columbia	187	9,287	1,523	16.4	2,092	22.5	3,827	41.2	1,845	19.9
Florida	758	115,201	28,322	24.6	48,698	42.3	29,823	25.9	8,010	7.0
Georgia	533	52,323	10,811	20.7	19,976	38.2	15,830	30.3	5,705	10.9
Maryland	487	42,704	7,504	17.6	13,693	32.1	14,938	35.0	6,569	15.4
North Carolina	539	58,180	14,017	24.1	22,654	38.9	16,553	28.5	4,956	8.5
South Carolina	566	25,651	4,787	18.7	11,045	43.1	7,402	28.9	2,417	9.4
Virginia	478	52,727	15,969	30.3	15,490	29.4	15,829	30.0	5,439	10.3
West Virginia	341	14,507	3,583	24.7	6,689	46.1	3,277	22.6	958	6.6
East South Central	1,744	125,913	21,396	17.0	56,437	44.8	35,404	28.1	12,521	9.9
Alabama	466	32,294	5,384	16.7	13,653	42.3	9,985	30.9	3,273	10.1
Kentucky	404	29,048	4,637	16.0	14,421	49.6	7,673	26.4	2,317	8.0
Mississippi	440	19,040	1,965	10.3	8,772	46.1	6,306	33.1	1,954	10.3
Tennessee	434	45,530	9,409	20.7	19,590	43.0	11,440	25.1	4,977	10.9
West South Central	2,057	187,984	32,617	17.4	78,755	41.9	60,725	32.3	15,707	8.4
Arkansas	392	17,148	3,688	21.5	8,499	49.6	3,776	22.0	1,185	6.9
Louisiana	461	31,255	7,031	22.5	10,603	33.9	11,324	36.2	2,297	7.3
Oklahoma	414	19,188	3,024	15.8	9,344	48.7	6,166	32.1	654	3.4
Texas	790	120,393	18,874	15.7	50,309	41.8	39,458	32.8	11,571	9.6

(Continued)

Table 40.(cont.) Employed nurses in each State and area, by highest nursing-related educational preparation: March 1996

State and area	Number in Sample	Total	Highest educational preparation							
			Diploma		Associate degree		Baccalaureate		Master's and doctorate	
			Number	Percent	Number	Percent	Number	Percent	Number	Percent
East North Central	2,707	371,020	93,176	25.1	124,947	33.7	117,183	31.6	35,715	9.6
Illinois	630	102,182	21,246	20.8	33,969	33.2	34,913	34.2	12,053	11.8
Indiana	419	45,546	10,109	22.2	18,012	39.5	14,657	32.2	2,767	6.1
Michigan	493	78,310	17,057	21.8	31,021	39.6	22,061	28.2	8,170	10.4
Ohio	726	99,781	34,326	34.4	29,246	29.3	27,764	27.8	8,445	a.5
Wisconsin	439	45,202	10,438	23.1	12,698	28.1	17,787	39.4	4,279	9.5
Uest North Central	3,608	172,839	49,012	28.4	57,047	33.0	53,190	30.8	13,550	7.8
Iowa	566	28,210	9,895	35.1	10,432	37.0	6,563	23.3	1,297	4.6
Kansas	490	20,733	5,403	26.1	6,845	33.0	6,674	32.2	1,811	a.7
Minnesota	623	44,015	10,644	24.2	16,147	36.7	14,044	31.9	3,180	7.2
Missouri	508	49,939	14,012	28.1	16,927	33.9	13,975	28.0	5,025	10.1
Nebraska	425	15,288	5,350	35.0	2,728	17.8	5,976	39.1	1,235	8.1
North Dakota	553	6,902	1,913	27.7	1,022	14.8	3,383	49.0	584	a.5
South Dakota	443	7,752	1,796	23.2	2,945	38.0	2,575	33.2	418	5.4
Mountain	3,436	113,524	19,359	17.1	42,496	37.4	40,759	35.9	10,796	9.5
Arizona	431	31,913	5,903	la.5	12,674	39.7	10,627	33.3	2,632	a.2
Colorado	504	30,827	5,873	19.1	7,856	25.5	12,728	41.3	4,370	14.2
Idaho	381	6,932	921	13.3	2,882	41.6	2,474	35.7	637	9.2
Montana	399	6,774	1,444	21.3	2,206	32.6	2,714	40.1	394	5.8
Nevada	375	9,290	1,710	la.4	3,843	41.4	3,215	34.6	521	5.6
New Mexico	431	11,362	1,805	15.9	5,155	45.4	3,523	31.0	879	7.7
Utah	484	12,641	982	7.8	6,261	49.5	4,288	33.9	1,110	8.8
Uyomi ng	431	3,784	721	19.0	1,618	42.8	1,190	31.5	255	6.7
Pacific	2,787	263,183	46,260	17.6	93,026	35.3	96,917	36.8	26,980	10.3
Alaska	402	5,913	1,309	22.1	1,637	27.7	2,333	39.5	634	10.7
California	1,041	180,325	32,944	la.3	64,556	35.8	64,834	36.0	17,991	10.0
Hawaii	365	8,678	1,650	19.0	2,549	29.4	3,419	39.4	1,060	12.2
Oregon	459	25,340	3,751	14.8	10,026	39.6	9,305	36.7	2,258	a.9
Uashington	520	42,927	6,605	15.4	14,259	33.2	17,025	39.7	5,037	11.7

"Includes 870 nurses for whom highest nursing-related education was not known.

Note: Estimated numbers may not add to total due to rounding.

Table 41. Registered nurse population by activity status and geographic location: March 1996

Geographic area	Total number of nurses	In metropolitan statistical area		Not in metropolitan statistical area	
		Employed in nursing	Not employed in nursing	Employed in nursing	Not employed in nursing
Total	2,558,874	1,695,517	364,049	420,298	79,010
New England	176,951	110,524	22,459	36,742	7,226
Middle Atlantic	443,846	312,276	78,714	43,644	9,211
South Atlantic	460,460	308,512	69,035	69,654	13,259
East South Central	141,705	88,474	11,025	37,438	4,767
West South Central	215,200	147,612	22,860	40,372	4,356
East North Central	452,080	299,057	64,889	71,963	16,171
West North Central	198,952	115,507	16,115	57,332	9,998
Mountain	137,739	86,965	19,127	26,559	5,089
Pacific	331,941	226,590	59,825	36,593	a,933

Note: Estimated numbers may not add to total due to rounding.

Table 42. Percent distribution of registered nurse population in each geographic area by racial/ethnic background: March 1996

Racial/ethnic background	United States	New England	Middle Atlantic	South Atlantic	East South Central	Uest South Central	East North Central	West North Central	-Mountain	Pacific
Estimated RN population in area	2,558,874	176,951	443,846	460,460	141,705	215,200	452,080	198,952	137,739	331,941
White (non-Hispanic)	89.7	96.5	86.8	87.4	92.1	85.6	93.9	96.6	92.4	83.5
Black (non-Hispanic)	4.2	1.3	5.6	7.3	6.3	5.0	2.8	1.4	1.1	3.1
Asian/Pacific Islander	3.4	0.8	5.4	2.7	0.5	3.8	2.0	0.5	1.7	8.3
American Indian/Alaskan Native	0.5	0.1	0.2	0.2	0.3	1.3	0.3	0.6	1.4	0.7
Hispanic	1.6	0.4	1.2	1.4	0.5	3.7	0.7	0.5	2.5	3.5
Not known	0.7	0.8	1.0	1.0	0.2	0.5	0.4	0.4	0.8	1.0

Note: Estimated percents may not add to 100 due to rounding.

Table 43. Percent distribution of registered nurse population in each geographic area by age group: March 1996

Age group	United States	New England	Middle Atlantic	South Atlantic	East South Central	West South Central	East North Central	West North Central	Mountain	Pacific
Estimated RN population in area	2,558,874	176,951	443,846	460,460	141,705	215,200	452,080	198,952	137,739	331,941
Less than 25 years	2.3	1.7	2.8	2.6	3.0	2.7	2.3	2.6	1.5	1.0
25 - 29	6.7	4.8	6.9	7.1	9.1	7.4	7.4	7.4	5.4	4.4
30 - 34	11.6	11.5	11.3	12.0	13.7	12.1	12.0	12.1	10.2	10.1
35 - 39	16.2	14.9	16.0	15.4	19.5	18.9	15.9	18.0	15.0	14.7
40 - 44	18.2	19.2	18.0	18.1	19.7	19.4	16.6	18.7	21.0	17.2
45 - 49	14.8	17.1	13.8	13.9	13.6	14.4	13.8	14.6	17.0	17.5
50 - 54	10.3	10.2	9.7	9.9	a.0	10.5	11.3	9.4	10.6	11.6
55 - 59	7.9	7.4	7.9	a.2	5.5	5.7	a.5	7.8	7.3	9.4
60 - 64	5.8	6.3	6.3	6.0	4.1	3.9	5.5	5.3	6.1	6.9
65 years and over	5.7	6.1	6.5	6.3	3.1	4.3	6.0	3.8	5.2	6.5
Not known	0.7	0.8	0.8	0.6	0.7	0.6	0.6	0.5	0.8	0.7

Note: Estimated percents may not add to 100 due to rounding.

Table 44. Employment setting of registered nurses in each geographic area: March 1996

Employment setting	United States	New England	Middle Atlantic	South Atlantic	East South Central	West south Central	East North Central	West North Central	Mountain	Pacific
Estimated employed RNs in area	2,115,815	147,266	355,920	378,166	125,913	187,984	371,020	172,839	113,524	263,183
Hospital	1,270,870	78,515	208,436	230,043	80,413	115,303	224,035	103,859	68,147	162,118
Nursing home/extended care facility	170,856	19,064	37,029	24,344	5,854	9,505	33,059	18,973	7,201	15,828
Nursing education	48,918	2,983	7,487	8,640	3,286	6,021	10,115	3,967	2,228	4,191
Community/public health	278,141	22,417	43,387	53,404	19,337	27,622	46,261	19,089	14,234	32,390
Student health service	62,932	7,748	17,289	8,228	1,164	6,393	7,043	4,539	3,722	6,806
Occupational health	21,575	1,118	2,885	4,716	1,149	1,424	4,023	2,603	1,121	2,535
Ambulatory care	178,930	11,146	27,558	31,126	9,815	13,385	33,388	13,294	11,183	28,035
Other	82,635	4,261	11,692	17,407	4,894	8,243	13,095	6,478	5,662	10,903
Not known	957	14	156	258		--	--	37	25	379

Note: Numbers may not add to total because of rounding.

Table 45. Percent distribution of registered nurses in each geographic area who changed employer or position between March 1995 and 1996, by principal reason for change

Reason for change	United States	New England	Middle Atlantic	South Atlantic	East South Central	West South Central	East North Central	West North Central	Mountain	Pacific
Estimated RNs who changed employer or position	401,599	25,822	55,345	76,602	27,210	46,547	64,689	30,389	27,801	47,193
Was laid off	3.6	5.2	4.6	2.8	2.9	3.2	3.7	3.3	3.2	3.6
Employer shifted positions due to reorganization	10.5	10.7	10.3	11.4	7.0	6.6	11.8	11.1	9.7	13.5
Employer reduced the number of RNs on staff	1.9	0.9	2.1	2.3	1.6	1.5	1.1	2.1	1.7	3.0
Employer planned to reduce salaries/benefits	0.8	1.6	1.0	0.2	0.5	0.9	1.0	1.6	0.9	0.9
Changes in organization/unit made work more stressful	10.7	11.2	8.8	11.0	10.3	14.5	11.6	7.7	11.6	8.9
Received a promotion	13.8	15.0	20.2	12.0	17.4	12.1	11.0	12.9	12.1	13.8
Was more interested in another position/job	20.0	25.1	21.0	18.5	20.5	19.6	23.2	19.7	18.6	15.3
Offered better pay/benefits	6.3	6.4	4.4	7.1	8.6	8.2	5.4	4.8	5.6	6.7
Relocated to different geographic area	12.2	6.8	9.1	15.0	11.3	12.5	9.8	14.4	17.2	13.7
Better opportunity to do the kind of nursing I like	11.4	8.4	10.4	12.1	11.4	11.5	11.5	12.7	10.4	12.2
Other	8.6	8.6	7.6	7.4	8.6	9.4	10.0	9.6	8.8	8.6
Not known	0.1	0.1	0.3	0.1	--	0.1	—	0.1	0.1	—

Note: Estimated percents may not add to 100 due to rounding.

Table 46. Average annual salary of registered nurses in staff nurse Positions in each geographical area: March 1996

Area of employment	Number in sample	Estimated number'	Annual salary
United States	10,261	851,420	838,567
New England	800	49,339	$41,672
Middle Atlantic	947	144,048	342,131
South Atlantic	1,831	167,510	$37,109
East South Central	810	57,440	$35,215
West South Central	982	89,450	$37,014
East North Central	945	131,043	$36,350
West North Central	1,400	64,538	533,825
Mountain	1,463	48,202	$35,572
Pacific	1,083	99,851	$44,781

"Estimated numbers may not add to total due to rounding.

APPENDIX B
SURVEY METHODOLOGY

APPENDIX B

SURVEY METHODOLOGY

This appendix provides a brief summary of the methodology of the study including the sample design and the statistical techniques used in summarizing the data. It also includes a discussion of sampling errors, provides the standard errors for key variables in the study and presents a simplified methodology for estimating standard errors. Much **of the material included here has** been abstracted from the technical report provided by the Research Triangle Institute (RTI), the contractor who carried out the sampling for and conducted the sixth National Sample Survey of Registered Nurses discussed in this report.

Sample Design

The six surveys carried out to date all followed the same design developed by Westat, Inc. under a contract with the Division of Nursing, BHPr, HRSA in 1975-76. The design approach took into account two key characteristics of the sampling frame. First, no single list of all individuals with licenses to practice as registered nurses in the United States exists although lists of those who have licenses in any one State are available. Second, a nurse may be licensed in more than one State.

A sampling frame was required to select a probability sample of nurses from which valid inferences could be made to the target population of all those with current licenses to practice in the United States. State Boards of Nursing in the 50 States and in the District of Columbia (hereafter also referred to as a State) provided files containing the name, address, and license number of every RN currently licensed in that State. These 51 files constituted a multiple sampling frame containing all the RNs licensed in the 51 States. Because many nurses are licensed in more than one State, their names could appear in the combined list more than once. A nested alpha-segment design was used to properly determine selection probabilities for nurses listed in more than one State.

The target population of this study was the current RN population of the United States as of March 1996. RNs were selected with equal probabilities within States. Whether RNs fell into the sample depended on whether their names fell within one of the alpha-segments or portions of alpha-segments that were selected for the sample. Approximately equal-sized alpha-segments were constructed by partitioning an alphabetically ordered list of all RN names nationwide into 250 segments with equal (or as nearly equal as possible) numbers of RNs. An alpha-segment consisted of all alphabetically adjacent names falling between set boundaries.

Both national and State-level estimates were required. While uniform sampling rates would have produced the best national estimates, the resulting sample sizes for the smallest States would have been inadequate to support State-level estimates. Sampling rates were increased in the smaller States to obtain larger State-level sample sixes. Planned sampling rates ranged from less than 1 percent in several of the States with a large RN population to 14 percent in Wyoming. Planned State sizes ranged from a sample of over 2,000 RNs in California to approximately 700 in Wyoming. While this disproportionate sampling improved the precision of estimates in the smaller States, it also reduced precision

of national estimates due to unequal weighting effects.

Registered nurses were in the sample on the basis of name, with an RN being included in the sample if the name of licensure fell within a specific portion of the alpha-segments included in the sample from the RN's State of licensure. As stated earlier, an alpha-segment consisted of all alphabetically adjacent names falling between set boundaries. The segments were constructed so that each segment contained approximately the same number of RNs. Specifically, the lower boundary of an alpha-segment was the last name in alphabetical order of all the names included in that segment. The membership of the segment consisted of all names, beginning with the lower boundary, *up to but not including* a name that defined the upper boundary. The latter name fell into the next alpha-segment.

A planned variation in the size of the portions of segments was used to accommodate the differing State sampling rates. The largest portions used were full alpha-segments while other sizes were ½-, ¼-, ⅛-, 1/16-, and ?&portions. The fractions indicated the size of the specified alpha-segment portion relative to the size of the basic alpha-segment. The sampling rate required for a given State was achieved using a combination of these portions of alpha-segments.

From the frame of 250 alpha-segments, 40 alpha-segments were randomly selected. Although each State had 40 sample segments (i.e., portions of alpha-segments), the segments differed in size depending on the State's sampling rate. To identify and account for nurses having multiple licenses, the alpha-segment portions from larger States were "nested," or included, within those from smaller States. Under this scheme, an RN who was licensed under the same name in two States with identical sampling rates was selected (or not selected) for both States because the alpha-segments and portions of alpha-segments that defined sample membership were identical for both States. However, for two States that were sampled at different rates, the alpha-segment portions for the lower sampling rate (the State with a larger RN population) were nested within those of the higher sampling rate (the State with the smaller RN population). The nested alpha-segment design permitted the use of each sample RN's data for State estimates of each of her/his States of licensure and also provided appropriate (multiplicity-adjusted) weights for both State and national estimates.

The nesting was based on how the 40 basic alpha-segment selections were used to define the sample for each State. Each of these alpha-segments, or one of the fractional portions of it, constituted one of the 40 sample clusters for each State. Accordingly, each of the basic alpha-segments had associated with it a %-portion selection and %-portion, ⅛-portion, 1/16-portion, and 1/32-portion selections.

The sampling rate for a particular State was obtained from some combination of the alpha-segments and portions. For example, the 40 complete alpha-segments would have constituted the sample for States with a 16 percent sampling rate. (Because each segment contained an expected 0.4 percent of the State's RN names, taken together they contained an expected 40 x 0.4 percent, or 16 percent, of those names.) The sample for a State with an 8 percent sampling rate consisted of the 40 M-portion selections. A 5 percent sampling rate was achieved by first randomly dividing the 40 alpha-segments into two groups, the first containing 30 alpha-segments and the other containing 10, and by using the ¼-portions from the first group and '/-portions from the second group ($0.4 \times [(30 \times ¼) + (10 \times ½)] = 5$).

The survey design specified precisely which alpha-segments and portions would correspond to each of the different sampling rates used. This design resulted in the specification of 40 pairs of names for each of the sampling rates. Each pair consisted of the names defining the lower and upper boundaries for one of the alpha-segments or alpha-segment portions corresponding to the sampling rate. Thus, the alpha-segment (portion) was defined by all names from its lower boundary up to but not including its upper boundary.

To ensure that current information about RNs could be obtained, the survey design called for periodic implementation. A panel structure for the RN survey allowed for several of the sample alpha-segments in the periodic surveys to be systematically replaced. Under the original survey design, the 40 sample alpha-segments were randomly assigned to five panels of eight alpha-segments each. For each successive survey, a new panel (consisting of eight new alpha-segments) was entered into the sample, replacing one of the five panels that was in the pre-

vious survey. Under this scheme, a nurse who maintained an active license in the same State(s) and whose name did not change could be retained in the sample for up to five surveys. With the reconstruction of the alpha-segments in the fourth RN survey (1988), changes were made so that exact correspondence of the current segments to those established initially may no longer exist; therefore, some nurses may not have been carried through all five surveys.

Each of the 51 State Boards of Nursing provided one or more files that contained the names of currently licensed RNs. These files formed the basis of the sampling frame from which the RNs for each State were selected. The licensure files provided by the States were submitted on computer tape, on diskettes, or on a printed list. Essentially the same procedure was followed for sample selection for all States regardless of which form was submitted. For this current study, States were also asked to identify those for whom the State provided advanced practice nurse (APN) status. In some cases, these APNs were identified on separate lists and their APN status was added to the information on the RN sampling frame list. In other cases, the State identified these nurses on the basic list provided. Once a licensure file provided by a State contained all appropriate names of individuals with active RN licenses and met all specifications, the required sample names in that file were selected. Regardless of the way a State alphabetized and standardized the names in its files, the sample names were selected according to the standards established by the survey design. That is, sample selections ignored blanks and punctuation in the last names (except a dash in hyphenated names) and ignored titles (e.g.,"sister"). Whether or not the RN was an APN was not taken into account in the sample selection.

Table B-l shows the sampling rates and sample sizes that were planned and actually obtained for the 51 States in the survey. Differences between planned and actual sampling rates result from State-specific variation in nurses' names. States are priority ordered by frame size (smaller to larger) so that sampling rates are decreasing down the table.

The original State frame sizes were adjusted to account for duplicate licenses within States and ineligible licenses (i.e., frame errors) found in the sample. Duplicates within States arose primarily from combining RN and APN lists. Most duplicates were identified before selecting the sample and determining the frame size, but a few were identified after sample selection, requiring a frame size adjustment. The ineligible licenses were identified in the process of reconciling the State and nurse reported licenses. Cases that could not be reconciled by RTI were sent to the State Boards of Nursing for resolution. No changes in the sampling rates occurred as a result of the frame adjustments, so the nesting of the alphabetic clusters remained the same even though the ordering by adjusted frame would have changed. It was, therefore, not necessary to change the priority ordering as a result of any changes in relative size.

Weighting Procedures

The probability sample design of the survey permits the computation of unbiased estimates of characteristics of the target population. These estimates are based on weights that reflect the complex design and compensate for the potential risk of nonresponse bias to the extent feasible. The weights that are assigned to each sample nurse may be interpreted as the number of nurses in the target population that the sample nurse represents. The weight for an RN is the reciprocal of the nurse's probability of selection in her/his priority State, adjusted to account for nonresponse.

A nurse is uniquely linked on the national sampling frame with her/his "priority State," i.e., the State with the lowest number of licensed RNs in which she or he was licensed and selected into the sample. All nurses with the same priority State had an equal probability of being selected within that State, so all sampled nurses with that priority State had equal weights. The sum of the weights for all respondents assigned a specific priority State equals, approximately, the total number of active licenses in the State at the time the sample was drawn less the number of those licenses assigned to higher-priority States.

The weights were computed sequentially for States A, B, etc., where A was the highest-priority State, and B the next-highest-priority State. The weight for State A was the ratio of the count of licenses in the sampling frame for State A to the number of respondents licensed in State A. For State B, and the remaining States, the numerator and denominator

Table B-1. State Sampling Rates and Sample Sizes (Priority-Ordered)

State	Frame[1] Size	Percent Sample Rate[2] Planned	Percent Sample Rate[2] Actual	Actual Sample Size
Total	2,878,444			45,339
Wyoming	4,937	14.00	15.31	**763**
Alaska	7,320	12.00	9.54	**698**
North Dakota	7,404	9.00	9.82	**728**
Vermont	7,521	9.00	8.97	**675**
Montana	9,656	7.00	7.03	**679**
South Dakota	9,746	7.00	6.89	**674**
Idaho	10,060	7.00	6.91	**701**
Hawaii	10,887	7.00	6.48	**706**
Nevada	11,590	7.00	6.74	**785**
Delaware	11,770	6.00	5.64	**711**
New Mexico	13,546	5.00	5.37	**727**
Utah	14,872	5.00	5.11	**760**
Rhode Island	15,939	4.50	3.85	**616**
New Hampshire	16,110	4.50	4.21	**679**
Maine	17,510	4.00	3.73	**655**
Nebraska	19,429	3.50	3.33	**650**
District of Columbia	20,438	3.50	3.57	**733**
West Virginia	20,815	3.50	3.30	**687**
Mississippi	23,513	3.00	3.48	**822**
Arkansas	25,820	3.00	3.21	**830**
South Carolina	27,910	3.00	3.03	**853**
Oklahoma	28,471	3.00	3.17	**902**
Kansas	28,266	3.00	3.13	**892**
Oregon	32,553	2.50	2.39	**779**
Iowa	36,023	2.50	2.40	**867**
Louisiana	36,541	2.00	2.06	**753**
Kentucky	38,041	2.00	1.90	**728**
Alabama	40,223	2.00	2.02	811
Arizona	41,881	2.00	1.85	773
Colorado	41,599	2.00	2.09	884
Connecticut	49,113	1.75	1.53	756
Minnesota	53,887	1.50	1.64	882
Maryland	56,089	1.50	1.53	856
Washington	56,880	1.50	1.49	849
Tennessee	57,898	1.25	1.29	748
Wisconsin	61,875	1.25	1.20	748
Missouri	65,336	1.25	1.23	802
Indiana	67,425	1.25	1.15	780
Georgia	71,389	1.25	1.39	991
North Carolina	73,374	1.25	1.23	899
Virginia	75,469	1.25	1.15	871
Massachusetts	102,628	1.00	0.90	919
New Jersey	111,767	1.00	0.90	1,010
Michigan	116,133	0.90	0.85	984
Ohio	128,230	0.90	0.91	1,161
Illinois	135,553	0.90	0.89	1,225
Texas	147,756	0.90	0.87	1,284
Florida	152,295	0.90	0.88	1,338
Pennsylvania	192,299	0.90	0.91	1,761
New York	219,124	0.90	0.84	1,855
California	253,533	0.90	0.83	2,099

[1]Adjusted frame size.
[2]Since the actual distribution of names differs for each State from the distribution derived from the merged States used for the development of the 250 alpha-segments some variation occurs between the planned and actual sampling rates.

of this ratio were adjusted to account for State A and other higher-priority States. To describe the basic method, the following terms are defined:

N(1) = total number of licenses for State I

m(1) = number of respondents for State I that did not have a license in a higher-priority State

n(i,j) = number of respondents with a license in both State I and State j [note n(i,i) denotes the number of eligible respondents with a license only in State I]

W(1) = the adjusted weight for eligible respondents who were assigned to the priority State I.

The weight for State A was computed as follows:

W(A) = N(A) / m(A).

For the State B weight, W(B), the numerator was the total frame count of RNs licensed in State B, N(B), after removing the estimated total count of State B nurses who were also licensed in State A (i.e., W(A) n(A,B)). Similarly, the numerator of W(C) excluded State C nurses who were also licensed in either State A or State B (i.e., W(A) n(A,C) + W(B) n(B,C)). That is, for the State B weight and the State C weight, the computations were:

W(B) = [N(B) - W(A) n(A,B)] / m(B)

W(C) = [N(C) - W(A) n(A,C) - W(B) n(B,C)] / m(C) .

In either case, the denominator was the number (m(B) or m(C)) of respondents in the State not licensed in a higher-priority State.

In general, the numerator of a State I weight, W(I), was the total frame

count licensed in State I after removing the estimated total count of State I nurses also licensed in higher-priority States. The denominator, m(I), was the number of State I respondents not licensed in a higher-priority State. This weighting scheme incorporated a nonresponse adjustment that inflated the respondents' data to represent the entire universe. The adjusted frame total shown in Table B-l was used in computing the State I weight.

Estimation Procedure

State-level estimates can be computed using the fmal set of sampling weights, W_k (for sample nurse k). For example, an estimate of the total number of RNs working in Iowa may be based on the following indicator variable, X,:

X_k = 1 if nurse k worked in Iowa,

= 0 otherwise.

The desired estimated total may then be written as

$$\hat{X} = \sum_k W_k X_k,$$

the sum being over all sample nurses.

Estimates of ratios and averages are obtained as the ratio of estimated totals.

Sampling and Nonsampling Errors

To the extent that samples are sufficiently large, relatively precise estimates of characteristics of the licensed RN population of the United States can be made because of the underlying probability structure of the sample data. Such estimates are, sometimes, an imperfect approximation of the truth. Several sources of error could cause sample estimates to differ from the corresponding true population value. These sources of error are commonly classified into two major categories: sampling errors and nonsampling errors.

A probability sample such as the one used in this study is designed so that estimates of the magnitude of the sampling error can be computed from the sample data. Nonsystematic components of nonsampling error are also reflected in the sampling error estimates.

Nonsampling Errors

Some sources of error-such as unusable responses to vague or sensitive questions; no responses from some nurses; and errors in coding, scoring, and pro-

cessing the data-are, to a considerable extent, beyond the control of the sampling statistician. They are called "nonsampling errors" and also occur in cases where there is a complete enumeration of a target population, such as the U.S. Census. Among the activities that were directed at reducing nonsampling errors to the lowest level feasible for this survey were careful planning, keeping nonresponses to the lowest feasible level, and coding and processing the sample data carefully.

If nonsampling errors are random, in the sense that they are independent and tend to be compensating from one respondent to another, then they do not cause bias in estimates of totals, percents, or averages. Furthermore, the contribution from such nonsampling errors will automatically be included in the sampling errors that are estimated from the sample data.

Although nonsampling errors that are randomly compensating do not tend to bias estimates of simple statistics, correlations or relationships in cross-tabulations are often decreased by such errors, and sometimes substantially. Thus, errors that tend to be compensated in estimates of simple aggregates or averages may (but not necessarily will) introduce systematic errors or biases in measures of relationships or cross-tabulations.

Nonsampling errors that are systematic rather than random and compensating are a source of bias for sample estimates. Such errors are not reduced by increasing the size of the sample, and the sample data do not provide an assessment of the magnitude of these errors. Systematic errors are reduced in this study by such things as careful wording of questionnaire items, respondent motivation, and well-designed data-collection and data-management procedures. However, such errors sometimes occur in subtle ways and are less subject to design control than is the case for sampling errors.

Nonresponse to the survey is one source of nonsampling error because a characteristic being estimated may differ, on average, between respondents and nonrespondents. For this reason, considerable effort has been expended in this survey to obtain a high response rate through such actions as respondent motivation and follow-up procedures. A high response rate reduces both random and systematic errors. After taking into account duplicates and frame errors, the overall response rate to this survey was 72.3 percent. State-level response rates ranged from a little over 60 percent in the District of Columbia and Nevada to 85.4 percent in North Dakota.

Sampling Errors

Sample survey results are subject to sampling error. The magnitude of the sampling error for an estimate, as indicated by measures of variability such as its variance or its standard error (the square root of its variance), provides a basis for judging the precision of the sample estimates.

Systematic sampling, which was the selection procedure used in choosing the alpha-segments for this study, is convenient from certain practical points of view, including providing for panel rotation. However, it does not permit unbiased estimation of the variability of survey estimates unless some assumptions are made. Standard errors were estimated based upon the assumption that the systematic sample of 40 alpha-segments is equivalent to a stratified random sample of two alpha-segments from each of 20 strata of adjacent alpha-segments. Ordinarily, this assumption should lead to overestimates of the sampling error for systematic sampling, but in this case (with alpha-segments as the sampling units) RTI believes the magnitude of the overestimate is trivial.

Regarding the sample as consisting of 20 pairs of alpha-segments (thus obtaining 20 degrees of freedom) for variance estimation, the probability is approximately .95 that the statistic of interest differs from the value of the population characteristic that it estimates by not more than 2.086 standard deviations.

Specifically, a 95 percent confidence interval for an estimated statistic $\hat{x}$ takes the form

$$\hat{x} \pm 2.086\hat{\sigma}_{\hat{x}}$$

where $\hat{\sigma}_{\hat{x}}$ is the estimated standard error of $\hat{x}$.

Direct Variance Estimation

The direct computation of the sampling variance used the jackknife variance estimation procedure with 20 replicates of the sample. Each replicate was

based on 19 pairs of alpha-segments and 1 alpha-segment from the 20th pair. The actual respondent count in the included segments for a particular replicate was approximately 39/40ths of the full respondent sample and was weighted to represent the full population.

Variance estimates using the jackknife approach require the computation of a set of weights for the full sample and a set for each replicate using the established weight computation procedure (i.e., 20 additional sets of weights). For the replicates, the weights were based on the number of responding nurses from the 39 segments associated with each replicate. Having 20 sets of weights permits construction of 20 replicate estimates to compare with the estimate produced from all of the data; each replicate estimate is based on about 39/40ths of the data.

This procedure was performed 20 times, once for each pair of alpha-segments.

The variance estimate is computed using the following procedure. Define the following:

$\hat{X}_i$ = an estimated total for replicate I associated with alpha-segment pair I, and

$\hat{X}$ = an estimated total obtained over the full sample.

The variance of $\hat{x}$, Var $(\hat{x})$, is estimated by computing

$$\text{Var}(\hat{x}) = \sum_{i=1}^{20} (\hat{x}_i - (\hat{x})^2.$$

If the estimate of interest is a ratio of two estimated totals (e.g., the proportion of RNs resident in Florida between 25 and 29 years old to the total number of RNs resident in Florida), the variance estimate for the estimated ratio would be of the following form:

$$\text{Var}\left(\frac{\hat{x}}{\hat{y}}\right) = \sum_{i=1}^{20}\left(\frac{\hat{x}_i}{\hat{y}_i} - \frac{\hat{x}}{\hat{y}}\right)^2.$$

Following the example, the $\hat{x}$ and $\hat{x}_i$ measurements would be full sample and replicate estimates, respectively, of the number of RNs resident in Florida who were 25 to 29 years old, while $\hat{y}$ and $\hat{y}_i$ would be the corresponding estimates of the total number of RNs resident in Florida. The variance of any other statistic, simple or complex, can be similarly estimated by computing the statistic for each replicate.

The jackknife variance estimator can use either the full sample estimate, $\hat{x}$, or the average of the replicate estimates. While usually little difference exists between the two estimates, RTI used the estimator $\hat{x}$, which tends to provide more conservative estimates of variance.

Direct estimates of the variance were computed for a variety of variables. These variables were chosen not only due to their importance, but also to represent the range of expected design effects. The average of these design effects (on a State-by-State basis) provides the basis for the variance estimate for variables not included in the set for which direct variance estimates were computed. Direct estimates of the standard error (the square root of the variance) are presented for a selected set of variables in Table B-2. Table B-3 shows the estimated State population of nurses and the standard error of these population totals.

Design Effects and Generalized Variances

The generalized variance is a model-based approximation of the sampling variance estimate, which is less computationally complex than the direct variance estimator but is also less accurate. The generalized variance equations use the national-level or State-level estimates of the design effect and, for some estimates, the coefficient of variation (CV) to estimate the sampling variance. The design effect, F, for an estimated proportion is determined by taking the ratio of the estimated sampling variance, $\sigma^2_{\hat{p}}$, obtained by the jackknife method, to the sampling variance of the $\hat{p}$ simple random sample of the same size. For the proportion $\hat{p}$, this is given by

$$F = \hat{\sigma}^2_{\hat{p}} / [\hat{p}\ (1 - \hat{p})],$$

where n is the unweighted number of respondents used to determine the denominator of $\hat{p}$.

Direct estimates of the design effect were computed for a set of variables for each State. The averages of the design effects were then computed for each State and the nation. These average design effects can be used in formulas for estimating generalized

Table B-2. Estimates and Standard Errors (SE.) For Selected Variables for U.S. Registered Nurse Population

Description	Estimated Number	S.E. of Estimated Number	Estimated Percent	S.E. of Estimate Percent
Number of Nurses	2,558,874	4,802		
Basic Nursing Education				
Diploma	910,618	7,547	35.59	0.2988
Associate Degree	965,059	12,589	37.71	0.4716
Baccalaureate Degree	675,685	11,140	26.41	0.4391
Master Degree	5,229	1,097	0.20	0.0428
Doctorate (N.D.)	309	170	0.01	0.0066
Unknown/Refused	1,974	453	0.08	0.0177
Employed in Nursing				
Yes	2,115,815	6,647	82.69	0.2721
No	443,059	7,304	17.31	0.2721
Racial/Ethnic Background				
Hispanic	40,559	7,375	1.59	0.2881
American Indian/Alaskan	11,843	1,517	0.46	0.0597
Asian/Pacific Islander	86,434	19,171	3.38	0.7509
Black/Not Hispanic	107,527	14,204	4.20	0.5528
White/Not Hispanic	2,294,092	25,544	89.65	0.9766
Unknown/Refused	18,417	1,629	0.72	0.0637
Employment Status in 1996				
Employed in Nursing FT	1,510,318	10,629	59.02	0.4090
Employed in Nursing PT	605,497	7,780	23.66	0.3105
Not Employed in Nursing	443,059	7,304	17.31	0.2721
Graduation Year				
Before 1961	351,033	8,939	13.72	0.3405
1961 to 1965	173,855	3,254	6.79	0.1271
1966 to 1970	211,971	5,650	8.28	0.2291
1971 to 1975	299,868	6,855	11.72	0.2645
1976 to 1980	374,879	6,289	14.65	0.2339
1981 to 1985	385,167	4,928	15.05	0.1945
1986 to 1990	338,468	6,757	13.23	0.2708
After 1990	417,580	7,235	16.32	0.2805
Unknown/Refused	6,054	885	0.24	0.0345
Highest Nursing Education				
Diploma	696,804	8,352	*27.23*	0.3319
Associate Degree	812,438	12,457	*31.75*	0.4755
Baccalaureate	799,507	10,900	*31.24*	0.4296
Master's	231,978	4,918	*9.07*	0.1866
Doctorate	16,465	1,314	*0.64*	0.0514
Unknown/Refused	1,682	432	*0.07*	0.0168
Age of Nurse				
<25	58,012	3,060	2.27	0.1214
25 to 29	170,277	5,054	6.65	0.1983
30 to *34*	297,119	6,844	11.61	0.2763
35 to 39	413,931	8,645	16.18	0.3366
40 to 44	465,188	7,095	18.18	0.2663
45 to 49	378,569	6,458	14.79	0.2518
50 to 54	263,635	6,136	10.30	0.2434

Table B-2. (continues)

Description	Estimated Number	S.E. of Estimated Number	Estimated Percent	S.E. of Estimate Percent
Age of Nurse (continues)				
55 to 59	201,114	6,369	7.86	0.2426
60 to 64	147,951	4,940	5.78	0.1946
>= 65	145,849	5,631	5.70	0.2153
Unknown/Refused	17,230	1,412	0.67	0.0546
Marital Status and Children				
Married Child < 6	217,039	4,484	8.48	0.1796
Married Child ≥ 6	753,218	7,748	29.44	0.2978
Married Chid < 6 and ≥ 6	208,027	3,870	8.13	0.1502
Married No Children	663,959	8,082	25.95	0.3021
Married Child Unknown	7,298	888	0.29	0.0345
Wid/Sep/Div Child < 6	12,598	1,557	0.49	0.0608
Wid/Sep/Div Child ≥ 6	170,756	4,675	6.67	0.1813
Wid/Sep/Div Child All	18,513	1,317	0.72	0.0516
Wid/Sep/Div No Children	245,709	9,110	9.60	0.3568
Wid/Sep/Div Child Unknown	1,834	536	0.07	0.0210
Never Married	251,484	5,537	9.83	0.2154
Unknown/Refused	8,438	828	0.33	0.0325
Employment Setting (For nurses employed in musing)				
Hospital	1,270,870	9,602	49.67	0.3831
Nursing Home Extended Care	170,856	4,810	6.68	0.1902
Nursing Education	48,918	2,699	1.91	0.1053
Public Health Community Health	278,141	5,055	10.87	0.2009
Student Health	62,932	3,505	2.46	0.1364
Occupational Health	21,575	1,525	0.84	0.0604
Ambulatory Care/Not Owned	170,589	6,303	6.67	0.2425
Nurse Owned/Operated Ambulatory Care	8,341	1,111	0.33	0.0432
Other	82,635	2,465	3.23	0.0970
Unknown/Refused	957	231	0.04	0.0090
Type of Position (For nurses employed in nursing)				
Administrator/Assistant Administrator	112,134	3,604	4.38	0.1402
Consultant	27,020	2,112	1.06	0.0825
Supervisor	95,451	3,826	3.73	0.1514
Instructor	73,084	3,536	2.86	0.1376
Head Nurse or Assistant	123,231	3,574	4.82	0.1375
Staff or General Duty	1,309,596	11,085	51.18	0.4556
Nurse Practitioner/Midwife	44,904	2,514	1.75	0.0980
Clinical Specialist	35,620	2,421	1.39	0.0946
Nurse Clinician	30,396	1,754	1.19	0.0680
Certified Nurse Anesthetist	21,827	1,995	0.85	0.0780
Research	12,665	1,581	0.49	0.0620
Private Duty	15,947	1,448	0.62	0.0562
Not Applicable	0	0	0.00	0.0000
Unknown/Refused	2,422	568	0.09	0.0222
Mean Gross Annual Salary for Full-Time RNs	42,071	161		
Mean Scheduled Hours Per Year	1,742	4		
Mean Hours Worked in Week Beginning on March 18,1996	36	0.1		

Table B-3. Direct Estimates of State Nurse Population, Standard Error, and Coefficient of Variation by State, 1996

State	1996 Estimated State Nurse Population	Standard Error	Coefficient of Variation (in Percent)
United States	2,558,874	4,802	0.19
Alabama	37,188	750	2.02
Alaska	6,651	289	4.35
Arizona	40,313	962	2.39
Arkansas	20,890	483	2.31
California	233,404	2,427	1.04
Colorado	37,289	737	1.98
Connecticut	41,296	770	1.86
Delaware	9,538	408	4.27
District of Columbia	9,948	749	7.53
Florida	148,046	2,218	1.50
Georgia	62,526	926	1.48
Hawaii	10,236	474	4.63
Idaho	8,627	250	2.90
Illinois	124,332	1,552	1.25
Indiana	56,420	1,076	1.91
Iowa	32,303	595	1.84
Kansas	24,452	561	2.29
Kentucky	32,427	745	2.30
Louisiana	33,969	492	1.45
Maine	15,507	311	2.00
Maryland	48,789	1,018	2.09
Massachusetts	87,995	1,890	2.15
Michigan	99,676	1,694	1.70
Minnesota	50,909	606	1.19
Mississippi	20,979	461	2.20
Missouri	58,096	798	1.37
Montana	8,417	169	2.01
Nebraska	16,909	319	1.89
Nevada	11,336	466	4.12
New Hampshire	12,938	406	3.14
New Jersey	88,404	1,722	1.95
New Mexico	13,185	363	2.75
New York	195,293	2,526	1.29
North Carolina	69,231	1,154	1.67
North Dakota	7,248	210	2.89
Ohio	118,612	1,400	1.18
Oklahoma	23,583	456	1.93
Oregon	29,239	716	2.45
Pennsylvania	160,149	2,111	1.32
Rhode Island	12,915	338	2.62
South Carolina	29,135	590	2.02
South Dakota	9,035	271	3.00
Tennessee	51,111	877	1.72
Texas	136,757	1,981	1.45
Utah	14,059	398	2.83
Vermont	6,300	275	4.36
Virginia	66,436	1,326	2.00
Washington	52,411	556	1.06
West Virginia	16,810	585	3.48
Wisconsin	53,040	793	1.49
Wyoming	4,512	276	6.11

variances or standard errors. This procedure uses average design effects for a class of estimates instead of calculating direct estimates (with a resulting economy in time and costs), at the sacrifice generally of some accuracy in the variance estimates.

A generalized standard error estimate for an estimated proportion, $\hat{p} = \hat{Y}/\hat{X}$, for a State or for the United States, is provided by the equation:

$$\sigma_{\hat{Y}/\hat{X}} = \sqrt{F \cdot (\hat{Y}/\hat{X}) \cdot (1 - \hat{Y}/\hat{X})/n} \qquad (1)$$

where n is the number of survey respondents used to determine the estimate X. The multiplier F, the median* design effect, depends upon the State for which the estimated proportion was generated. The median design effects are on Table B-4.

Generalized estimates of standard errors can also be computed for estimated numbers (or totals) of RNs in a State, Y, with a particular characteristic (such as those employed in hospitals). The estimate $\hat{Y}$ is a subtotal of the estimate X, the estimated total of RNs working and/or living in the State; The standard error and coefficient of variation of X (represented by $C.V_{\hat{x}}$) were determined for the nation and for each State. The following explanation is made simpler by defining the relative variance of an estimate as the square of its coefficient of variation.

Then the relative variance of the ratio of to (called) can be calculated as:

$$V^2_{\hat{Y}/\hat{X}} = \frac{F(1 - \hat{Y}/\hat{X})}{n(\hat{Y}/\hat{X})},$$

where F is the design effect for the State of interest and n is the number of respondents to the survey (i.e., the number in the sample that were weighted to obtain the estimate X).

Then we can approximate the relative variance of $\hat{Y}$, denoted $V^2_{\hat{Y}}$, using

* The median design effect was based on all design effects for estimates of proportions computed on selected variables. Using a median instead of mean value avoids the effects of extreme estimates of standard errors which can occur for some relatively rare attributes. In prior years, an average (mean) design effect was computed for selected variables. Given that the distribution of design effects is skewed to the right, it is expected that the true median be less than the true mean.

Table B-4. Median Design Effects for Percentages Estimated from the Sixth National Sample Survey of Registered Nurses, 1996

State	Median Design Effect
United States	1.72
Alabama	1.02
Alaska	1.11
Arizona	0.94
Arkansas	1.01
California	1.17
Colorado	0.96
Connecticut	1.02
Delaware	1.11
District of Columbia	0.94
Florida	1.10
Georgia	1.00
Hawaii	1.27
Idaho	0.99
Illinois	1.04
Indiana	0.93
Iowa	1.01
Kansas	1.01
Kentucky	0.99
Louisiana	1.02
Maine	1.04
Maryland	1.02
Massachusetts	1.06
Michigan	1.01
Minnesota	0.98
Mississippi	0.92
Missouri	1.01
Montana	1.01
Nebraska	1.04
Nevada	0.99
New Hampshire	1.03
New Jersey	1.05
New Mexico	1.11
New York	1.05
North Carolina	1.00
North Dakota	0.94
Ohio	0.95
Oklahoma	1.01
Oregon	0.96
Pennsylvania	1.07
Rhode Island	0.96
South Carolina	1.14
South Dakota	1.00
Tennessee	1.06
Texas	1.26
Utah	1.05
Vermont	1.07
Virginia	1.01
Washington	1.13
West Virginia	0.98
Wisconsin	1.01
Wyoming	1.01

$$V^2_{\hat{Y}} = V^2_{\hat{Y}/\hat{X}} + (C.V._{\hat{X}})^2.$$

This approximation is based on the first-order Taylor series approximation to the variance of a product and the assumption of zero correlation between the estimate of ratio and the denominator of the ratio.

Finally, the variance of $\hat{Y}$ can be estimated by multiplying by the relative variance above by the square of the estimate, Y. The standard error of $\hat{Y}$, $\sigma_{\hat{Y}}$, is thus estimated as

$$\sigma_{\hat{Y}} = \hat{Y}\sqrt{\hat{V}^2_{\hat{Y}}} \qquad (2)$$

The standard error of an estimated percentage for a region of the United States depends upon a linear combination of the variance of the same estimated percentages for the States making up that particular region. The estimated proportion for the region is

$$\hat{Y}_R/\hat{X}_R = \frac{\sum_{s=1}^{n} \hat{Y}_s}{\sum_{s=1}^{h} \hat{X}_s}$$

here h is the number of States in region R, and $\hat{Y}_s$ and $\hat{X}_s$ are estimates for a particular State. The formula used to approximate the standard error of an estimated proportion for a region is

$$\sigma_{\hat{Y}_R/\hat{X}_R} = \sqrt{\sum_{s=1}^{h} (\hat{X}^2_s \sigma^2_{\hat{Y}_s/\hat{X}_s}) / (\sum_{s=1}^{h} \hat{X}_s)^2} \qquad (3)$$

where $\sigma_{\hat{Y}_s/\hat{X}_s}$ represents the standard error of the estimated proportion Y_s/X_s for the States and the standard errors are estimated from equation (1) or from direct estimation.

The direct standard error for an estimated number for a region of the United States also depends upon a linear combination of the variance of the same estimated numbers for the States that make up the region. The formula used is

$$\sigma_{\hat{Y}_R} = \sqrt{\sum_{s=1}^{h} \sigma^2_{\hat{Y}_s}} \qquad (4)$$

where the standard error ($\sigma_{\hat{Y}}$) of the estimated number Y_s is available either from the direct procedures or from equation (2).

Illustrative examples of the computation of the generalized variance appear on the following page.

Illustrative Examples of Generalized Variance Estimates

1. Estimated Percentages (or proportions) for a State or the United States

   a. Percent of nurses in New York who were employed in nursing on a full- time basis:

   p = 60.7 F = 1.05 n = 1,151

   $\sigma = [1.05(.607)(.393)/1,151]^{1/2} = 0.015$ or 1.5%

   b. Percent of employed nurses in the United States who were working in hospitals:

   p = 49.7 F = 1.72 n = 29,837

   $\sigma = [1.72(.497)(.503)/29,837]^{1/2} = 0.004$ or 0.4%

2. Estimated number for a State or the United States

   a. Estimated number of nurses located in New York State who were not employed in nursing:

   $\hat{Y}$ = 29,626 x = 195,293 $\hat{Y}/X$ = 0.1517 n=1,151 $C.V._x$ = 1.29%

   F = 1.05

   $V_{\hat{Y}}^2 = [(1.05)(.8483)/(1,151(.1517))] + (.0129)^2 = 0.0053$

   $\sigma_{\hat{Y}} = 29,626\ (.0053)^{1/2} = 2,157$

   b. Estimated number of nurses located in United States who were not employed in nursing:

   $\hat{Y}$ = 443,059 X = 2,558,874 n = 29,837

   $C.V._x$ = 0.19% $\hat{Y}/X$ = 0.1731 F = 1.72

   $V_{\hat{Y}}^2 = [(1.72)(.8296)/(29,837(.1731))] + (.0019)^2 = 0.0003$

   $\sigma_{\hat{Y}} = 443,059\ (.0003)^{1/2} = 7,674$

3. Standard error of a regional estimate (or a grouping of States)

   Estimated percent of nurses employed in nursing in the Middle Atlantic region:

   Y/X = .802 or 80.2%

   $\sigma_{\hat{Y}/XNJ} = [1.05(.7625)(.2375)/594]^{-} = 0.0179$ or 1.79%

   $\sigma_{\hat{Y}/XNY} = [1.05(.8483)(.1517)/1,151]^{-} = 0.0108$ or 1.08%

   $\sigma_{\hat{Y}/XPA} = [1.07(.7671)(.2329)/1,234]^{-} = 0.0124$ or 1.24%

   $\sigma_{\hat{Y}/XR} = \{[(88,404)^2(.0195)^2 + (195,293)^2(.0116)^2 + (160,149)^2(.0135)^2]/$
   $(88,404 + 195,293 + 160,149)^2\}^{-} = .0081$ or .81%

APPENDIX C
QUESTIONNAIRE

OMB No. 09150192
Expiration Date: June 30, 1997

NATIONAL SAMPLE SURVEY OF REGISTERED NURSES

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Bureau of Health Professions

Public Health Service

Division of Nursing

Health Resources and Services Administration
Rockville, MD 20857

Dear Colleague:

We are writing to request your participation in an important study of the nurse population in the United States. This survey is being conducted for the Division of Nursing, Bureau of Health Professions, Health Resources and Services Administration, Public Health Service, U.S. Department of Health and Human Services by the Research Triangle Institute. The information is for statistical purposes only and will not be connected with your name. Individually identifiable information will be used for sample definition and for preventing data duplication. Once this process is completed, individual identifiers will be destroyed. Participation is voluntary, and there are no penalties for failure to answer any question; however, each unanswered question substantially reduces the accuracy of the data.

This study is being carried out to assist in fulfilling congressional requirements stated in Section 951 of P.L. 94-63 (42 USC 296 note), which specifies that information be obtained, on a continuing basis, on the number and distribution of nurses; and in Section 792 of Title VII of the Public Health Service Act (42 USC 295k) which calls for the collection and analysis of data on health professionals. These public laws require the preparation and submission of reports to Congress. In addition, these data are a primary resource throughout the health care arena as studies are made assessing the number and characteristics of the registered nurse supply.

The questionnaire has been divided into five sections. These sections are designed to gather information on (a) your educational background, (b) your employment in nursing, (c) your employment status if you are not currently employed in nursing, (d) prior nursing employment status, and (e) general information.

Please read and follow all instructions carefully and answer all questions unless otherwise instructed. It should take about 20 minutes of your time to complete. Return the completed questionnaire in the postage-paid envelope enclosed in this package at your earliest convenience. All RNs who have received the questionnaire are requested to complete it regardless of their retirement or working status. If possible, we suggest you complete it now.

Thank you for your cooperation. Your efforts are greatly appreciated.

Sincerely,

Marla E. Salmon

Marla E. Salmon, ScD, RN, FAAN
Director

IF YOU HAVE RECEIVED MORE THAN ONE COPY OF THE QUESTIONNAIRE, PLEASE RETURN THE EXTRA COPY(IES) ALONG WITH THE COMPLETED QUESTIONNAIRE.

NATIONAL SAMPLE SURVEY OF REGISTERED NURSES

Instructions

Everyone receiving this questionnaire is requested to complete it. This includes persons who are:

- Retired
- Not presently working
- Employed but not as an RN
- Employed as an RN

If you receive more than one questionnaire, please complete only one copy and return it and all extra copies of the questionnaire to the Research Triangle Institute. Do not give extra questionnaires to another nurse to complete.

Please read and carefully follow all instructions and answer all questions unless otherwise instructed.

Many questions request you to "Circle only one number." Please circle the number in front of the correct response and not the response.

EXAMPLE:

The correct way to answer a question is to *(Circle on/y one number):*

0 1. Circle the number in front of the response.

2. Circle the response.

Please return your completed questionnaire in the enclosed postage-paid envelope at your earliest convenience.

PUBLIC BURDEN STATEMENT

Public reporting burden for this collection of information is estimated to average 20 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to DHHS Reports Clearance Officer; Paperwork Reduction Project (09150192); Room 531 -H; Hubert H. Humphrey Bldg., 200 Independence Ave., SW; Washington, DC 20201.

SECTION A: EDUCATION

CIRCLE THE APPROPRIATE NUMBER CORRESPONDING TO YOUR ANSWER IN EACH QUESTION OR SUPPLY REQUESTED INFORMATION

1a. In what type of **basic** nursing education program were you prepared to **become a reaistered nurse?** *(Circle only one number)*

1. Diploma
2. Associate Degree
3. Baccalaureate Degree
4. Master's Degree
5. Doctorate (N.D.)

1b. In what month and year did you graduate from this program?

Month Year

1c. In which State or foreign country was this basic nursing education program located?

For office use

2a. IMMEDIATELY PRIOR TO STARTING THE BASIC NURSING EDUCATION PROGRAM described in Question 1, were you **employed** in a health occupation?

1. Yes
2. No → *(Skip to 3a)*

2b. Were you employed as a *(Circle only one number)*

1. Nursing Aide
2. Licensed Practical/Vocational Nurse
3. Other *(Specify)*

3a. BEFORE STARTING THE BASIC NURSING EDUCATION PROGRAM described in Question 1, were you ever licensed to practice as a licensed practical or vocational nurse?

1. Yes
2. No

3b. BEFORE STARTING THE BASIC NURSING EDUCATION PROGRAM described in Question 1, did you receive a degree from **any** other formal **post-**secondary education program?

1. Yes
2. No → *(Skip to 4a)*

3c. What was the highest degree you received before starting your basic nursing education program? *(Circle only one number)*

1. Associate Degree
2. Baccalaureate Degree
3. Master's Degree
4. Doctorate Degree

3d. Was this degree in a health-related field?

1. *Yes* → *(Skip to 4a)*
2. No

3e. What was your major field of study? *(Circle only one number)*

1. Biological or Physical Science
2. Business or Management
3. Education
4. Liberal Arts
5. Social Science
6. Other *(Specify)*

4a. SINCE GRADUATING FROM THE BASIC NURSING EDUCATION PROGRAM YOU DESCRIBED IN QUESTION 1, have you earned any additional degrees?

1. Yes
2. No → *(Skip to 6)*

4b. For **each** academic degree you have received since graduation from your basic nursing education program, please indicate (i) the type of degree; (ii) whether or not the degree is related to your nursing career; and (iii) the year the degree was received.

Type of Degree	(i) Received degree *(CHECK ALL THAT APPLY)*	(ii) Related to nursing career *(CIRCLE YES OR NO)*	(iii) Year in which you received your degree
Associate degree in nursing	1 ☐		19 ____
Associate degree in another field	2 ☐	Yes No	19 ____
Baccalaureate in nursing	3 ☐		19 ____
Baccalaureate in another field	4 ☐	Yes No	19 ____
Master's in nursing	5 ☐		19 ____
Master's in another field	6 ☐	Yes No	19 ____
Doctorate in nursing	7 ☐		19 ____
Doctorate in another field	8 ☐	Yes No	19 ____

IF YOU HAVE LISTED A MASTER'S OR DOCTORATE DEGREE IN QUESTION 4b, CONTINUE WITH QUESTION 5, OTHER WISE SKIP TO QUESTION 6.

5. What was the **one** primary focus of your master's and/or doctorate degree(s)?
(Circle only one number for each relevant degree)

5a. Master's

1. Clinical Practice
2. Education
3. Supervision/Administration
4. Other *(Specify)* _____

5b. Doctorate

1. Clinical Practice
2. Education
3. Supervision/Administration
4. Research
5. Other *(Specify)* _____

6a. SINCE GRADUATING FROM THE BASIC NURSING EDUCATION PROGRAM YOU DESCRIBED IN QUESTION 1, have you comoleted a formal educational program preparing you for advanced practice as a clinical nurse specialist, nurse anesthetist, nurse-midwife, or nurse practitioner?

1. Yes
2. No → *(Skip to 7a)*

	A Clinical Nurse Specialist	B Nurse Anesthetist	C Nurse-Midwife	D Nurse Practitioner
6b. *Please check the advanced practice nurse category(ies) for which you have been prepared.*	c /	c /	c /	☐

for items 6c–6h, the first column on the left contains the description of the response items for each question. In the column for the advanced practice category(ies) which you checked, please circle the number corresponding to the number of the appropriate response item.

6c. Length of Program *(Please circle appropriate response)*				
1. Less than 3 months	1	1	1	1
2. 3 through 8 months	2	2	2	2
3. 9 months or more	3	3	3	3
6d. Award Received *(Please circle appropriate response)*				
1. Certificate	1	1	1	1
2. Master's Degree	2	2	2	2
3. Post-Master's Certificate	3	3	3	3
4. Other Degree	4	4	4	4
(Specify in appropriate column)	*(Specify)* _____	*(Specify)* _____	*(Specify)* _____	*(Specify)* _____
6e. Specialty Studied *(Please circle appropriate response)*				
1. Adult health/medical surgical	1	1	1	1
2. Anesthesia	2	2	2	2
3. Community health/public health	3	3	3	3
4. Critical care	4	4	4	4
5. Family	5	5	5	5
6. Geriatric/gerontology	6	6	6	6
7. Maternal-child health	7	7	7	7
8. Neonatal	8	8	8	8
9. Nurse-midwifery	9	9	9	9
10. Obstetric/gynecology	10	10	10	10
11. Occupational health	11	11	11	11
12. Oncology	12	12	12	12
13. Pediatric	13	13	13	13
14. Psychiatric/mental health	14	14	14	14
15. Rehabilitation	15	15	15	15
16. School health	16	16	16	16
17. Women's health	17	17	17	17
18. Other	18	18	18	18
(Specify in appropriate column)	*(Specify)* _____	*(Specify)* _____	*(Specify)* _____	*(Specify)* _____

(continued)

(question 6 continued from page 3)

	A Clinical Nurse Specialist	B Nurse Anesthetist	C Nurse-Midwife	D Nurse Practitioner
6f. Currently Certified by a National Certifying Body *(Please circle appropriate response)*				
1. Yes	1	1	1	1
2. No	**2**	**2**	**2**	**2**
	*(If you do nof have **any** certifications, go to **7a**)*			
6g. National Certifying Body *(Please circle appropriate response)*				
1. American Academy of Nurse Practitioners	1	**1**	1	1
2. American Association of Nurse Anesthetists	2	2	2	2
3. American College of Nurse-Midwives	3	3	3	3
4. American Nurses Credentialing Center (ANCC)	4	4	4	4
5. National Certification Board of Pediatric Nurse Practitioners and Nurses (NCPNP/N)	5	5	5	5
6. National Certification Corporation forthe Obstetric, Gynecologic, and Neonatal Nursing Specialties (NCC)	6	6	6	6
7. Other *(Specify in appropriate column)*	**7** *(Specify)*	**7** *(Specify)*	**7** *(Specify)*	**7** *(Specify)*
6h. **Type of Certification** *(Please circle appropriate response)* *CS* — **clinical specialist** **NP — nurse practitioner**				
1. Adult NP	1	1	1	1
2. Certified registered nurse anesthetist (CRNA)	2	2	2	2
3. Certified nurse-midwife (CNM)	3	3	3	3
4. Community Health CS	4	4	4	4
5. Family NP	5	5	5	5
6. Gerontological CS	6	6	6	6
7. Gerontological NP	7	7	7	7
8. Medical-surgical CS	8	8	8	8
9. Neonatal NP	B	9	B	9
10. Pediatric NP	10	10	10	10
11. Psychiatric & mental health CS – Adult	**11**	**11**	11	11
12. Psychiatric & mental health CS – Child & Adolescent	**12**	**12**	12	12
13. School NP	**13**	**13**	13	13
14. Women's Health Care NP (Ob-Gyn NP)	**14**	**14**	14	14
15. Other *(Specify in appropriate column)*	**15** *(Specify)*	**15** *(Specify)*	**15** *(Specify)*	**15** *(Specify)*

7a. Are you currently enrolled in a formal education program leading-to an academic degree with a nursina or nursina-related maior?

1. Yes

2. No → *(Skip to 8)*

7b. Are you considered a full-time or part-time student?

1. Full-time student

2. Part-time student

7c. What degree are you currently working toward in this program?
(Circle *only one number)*

1. Associate Degree
2. Baccalaureate
3. Master's
4. Doctorate
5. Other *(Specify)*

_____

7d. How are your tuition and fees being financed?
(Circle *all that apply)*

1. Personal and family resources

2. Employer tuition reimbursement plan (including Veterans Administration employer tuition plan)

3. Federal traineeship, scholarship, or grant

4. Federally assisted loan

5. State or local government loan or scholarship

6. Non-government scholarship, loan, or grant

7. University teaching or research fellowship

8. Other resources *(Specify)*

_____

SECTION B: EMPLOYMENT STATUS

8. **Were you employed in nursing as of March 20, 19961** *(SEE NOTE BELOW)*

NOTE: Employment also includes: being on a temporary leave of absence from your nursing position; on vacation; on sick leave; or a nurse doing private duty or working through a temporary employment service and not on a case at the moment.

1. Yes

2. No → *(Skip to 20)*

Questions 9 through 18 refer to your principal employment setting and nursing position as of March 20, 1996. If you held more than one position in nursing, provide your answers in terms of what you consider your principal nursing position during your regular work year. For example, if you hold more than one nursing position (e.g., day/night or winter/summer), consider the principal nursina position as the one at which you spend the greater amount of time.

9. What was the location of employment on March 20, 1996? *(SEE NOTE BELOW)*

NOTE: If you were not employed in a fixed location (e.g., you were a private duty nurse or worked through a temporary employment service), consider the area where you spend most of your working time as your location of employment.

City: _____

County: _____

State (or country if not U.S.A.):

_____

ZIP Code: | | | | | |

10. In **your principal nursing position are you:**
(Circle only one number)

1. An employee of the facility for which you are working?
2. Employed through a temporary employment service agency?
3. Self employed?

11. Which one of the following settings best describes the TYPE OF SETTING in which you were working on March 20, 1996 in your principal nursing position? (If your employment is that of a private duty nurse or you work through a temporary employment service, CIRCLE THE **ONE** SETTING **in which you spend most of your working time.)**

CIRCLE ONLY ONE NUMBER ON PAGE

Hospital (Exclude nursing home units and all off-site units of hospitals but include all on-site clinics and other services of the hospitals)

110 Non-Federal, short-term hospital, except psychiatric (for example, acute care hospital)

120 Non-Federal, long-term hospital, except psychiatric

130 Non-Federal psychiatric hospital

140 Federal Government hospital

150 Other type of hospital (Specify) _____

Nursina Home/Extended Care Facility

210 Nursing home unit in hospital

220 Other nursing home

230 Facility for mentally retarded

240 Other type of extended care facility *(Specify)* _____

Nursina Education Proaram

310 LPN/LVN program

320 Diploma program (RN)

330 Associate degree program (RN)

340 Baccalaureate and/or higher degree nursing program

350 Other program *(Specify)* _____

Public Health/Community Health Setting

400 Official State Health Department

405 Official State Mental Health Agency

410 Official City or County Health Department

415 Combination (official/voluntary) nursing service

420 Visiting nurse service (VNS/NA)

425 Other home health agency (non-hospital based)

430 Community mental health facility (including freestanding psychiatric outpatient clinics)

435 Community/neighborhood health center

440 Planned Parenthood/family planning center

445 Day care center

450 Rural health care center

455 Retirement community center

460 Hospice

465 Other *(Specify)* _____

School Health Service

510 Public school system

520 Private or parochial elementary or secondary school

530 College or university

540 Other *(Specify)* _____

Occupational Health (Employee Health Service)

610 Private Industry

620 Government

630 Other *(Specify)* _____

Ambulatory Care Settlnq

710 Solo practice (physician)

715 Solo practice (nurse)

720 Partnership (physicians)

725 Partnership (nurses)

730 Group practice (physicians)

735 Group practice (nurses)

740 Partnership or group practice (mixed group of professionals)

750 Freestanding clinic (physicians)

755 Freestanding clinic (nurses)

760 Ambulatory surgical center (non-hospital based)

770 Dental practice

780 Health Maintenance Organization (HMO)

790 Other *(Specify)* _____

Other

910 Central or regional Federal agency

920 State Board of Nursing

930 Nursing or health professional membership association

940 Health planning agency

950 Prison or jail

960 Insurance company (review claims)

970 Other *(Specify)* _____

12. Which one of the following titles beat corresponds tto the position title for your grincioai nursing position?
(Circle on/y one number)

1. Administrator of facility/agency or assistant
2. Administrator of nursing or assistant (e.g., vice president for nursing, director/assistant director of nursing service)
3. Case manager
4. Certified nurse anesthetist (CRNA)
5. Charge nurse
6. Clinical nurse specialist
7. Consultant
6. Dean, director, or assistant/associate director of nursing education
9. Discharge planner
10. Head nurse or assistant head nurse
11. infection control nurse
12. in-service education director
13. Instructor
14. insurance reviewer
15. Nurse clinician
16. Nurse coordinator
17. Nurse manager
18. Nurse-midwife
19. Nurse practitioner
20. Outcomes manager
21. Patient care coordinator
22. Private duty nurse
23. Professor or assistant/associate professor
24. Public health nurse
25. Quality assurance nurse
26. Researcher
27. School nurse
28. Staff nurse
29. Supervisor or assistant supervisor
30. Team leader
31. No position title
32. Other *(Specify)*

_____

13%. For your principal nursing position, approximately what percentage of your time is spent in the following areas during a usual work week? Please make sure the total equals 100%.

	Percent
A. **Administration**	%
B. **Consultation with agencies and/or professionals**	%
C. **Direct patient care, not including staff supervision**	%
D. **Research**.....	%
E. **Supervision**	%
F. **Teaching nursing or other students** in health care occupations (include ail class preparation time).	%
G. Other *(Specify)*	%
TOTAL MUST EQUAL 100	%

13b. Does your principal nursing position involve direct patient care in a hospital setting during a usual work week?

1. **Yes**
2. **No** → *(Skip to 15)*

14a. in what type of unit do you work more than half of your patient care time during a usual work week? *(Circle only one number)*

1. intensive care bed unit
2. Step-down, transitional bed unit
3. General/specialty (other than intensive care or step-down) bed unit

(Go to *14b)*

4. Outpatient department
5. Operating room
6. Post anesthesia recovery unit
7. Labor/delivery room
8. Emergency department
9. Home health care
10. Hospice unit
11. Other specific area *(Specify)*

_____

12. *No* specific assigned type of area

→ *(Skip to 15)*

14b. What type of patients are primarily treated in the hospital unit in which you work?
(Circle only one number)

1. Chronic care
2. Coronary care
3. Neurological
4. Newborn
5. Obstetrics/gynecologic
6. Orthopedic
7. Pediatric
8. Psychiatric
9. Rehabilitation
10. Basic medical/surgical (or specialty areas not specified above)
11. Work in multiple units not specifically specialized

15. **If you were EMPLOYED BY AN INSTITUTION OR AGENCY and were scheduled to work for the normal "full"** work week throughout the normal **work year, as defined by the agency, circle category "1". If you worked less than the normal "full" work week and/or less than the normal work year, circle either "2" or "3", whichever is applicable.**

If you were SELF-EMPLOYED and are generally available for work throughout the year during what would constitute a normal "full" work week, circle category "1". If you restrict yourself to work only a segment of the work week and/or year, circle either "2" or "3", whichever is applicable.

Do you:

1. Work an entire calendar vear or school or academic year on a full-time basis?
2. Work an entire calendar year or school or academic year on a oart-time basis?
3. Work only part of the normal work vear on either a full- or part-time basis?

16a. Approximately how many hours are you usually scheduled to work during a normal work week (as defined by the agency) at your principal nursing position? If you do not work on a routine schedule, how many hours do you usually work during a week at your principal nursing position?

_____ **hours**

16b. How many hours did you actually work during the week beginning on March 18, 1996? (Include overtime but exclude holidays, sick leave, vacation time not worked.)

_____**hours**

17. Approximately how many weeks are there in your normal work year for your principal nursing position (include in your work year paid vacation, etc.) Note: If you are self-employed or do not work a routine schedule, report the estimated number of weeks you expect to work in 1996.

_____ weeks

18. PLEASE SPECIFY THE ANNUAL EARNINGS FOR YOUR PRINCIPAL POSITION ONLY.

What is your gross annual salary before deductions for taxes, social security, etc.? If you do not have a set annual salary (for example, you are part-time, private duty, or self-employed), provide an estimate of your annual earninas for 1996.

Annual earnings: $_____ / year

19a. Do you hold more than one position in nursing for pay?

1. **Yes**
2. No → *(Skip to 23a)*

19b. In **your other nursing position(s) for pay, do you:** *(Circle all that apply)*

1. Work as an employee of the facility?
2. Work through a temporary employment service agency?
3. Work in a self-employed capacity?

19c. What type of work do you do in your other nursing position(s) for pay? *(Circle all that apply)*

1. Home health
2. Hospital staff
3. Nursing home staff
4. Private duty nursing
5. Teaching
6. Patient consultation
7. Consultation
8. Research
9. Other (Specify)

_____

19d. What is the average number of hours per week you spend in your other nursing position(s)? Please also provide an estimate of the total number of weeks in 1996 that you will spend in this other nursing position(s). Note: If you are self-employed or do not work a routine schedule, report the estimated number of weeks you expect to work in 1996.

Average hours per week _____

Weeks in 1996 _____

19e. How many hours did you actually work in your other nursing position during the week beginning on March 18, 1996? If you did not work in your other nursing position(s) during that week, please enter "0".

_____**hours**

19f. For your other nursing position(s), please provide an estimate of the total annual earnings for 1996. Note: If you are self-employed or do not work a routine schedule, report the estimated amount you expect to earn in 1996.

Estimated annual earnings $_____ / year

SKIP ***TO QUESTION 23a***

SECTION C: EMPLOYMENT STATUS OF RNS NOT EMPLOYED IN NURSING

20. How long has it been since you last worked for pay as a registered nurse?

1. Never worked as a registered nurse
2. Less than a year
3. One year or more

Indicate number of years _____

21a. Are you employed in an occupation other than nursing?

1. Yes
2. No *(Skip to 22a)*

→

21b. Are you considered a full-time or part-time employee?

1. Full-time
2. Part-time

21c. Are you employed in a health-related agency or position?

1. Yes
2. No

21d. What is the reason(s) you are not working in a nursing position?
(Circle *all* that *apply)*

1. Difficult to find a nursing position
2. Hours more convenient in other position
3. Better salaries available in current type of position
4. Concern about safety in health care environment
5. Inability to practice nursing on a professional level
6. Find current position more rewarding professionally
7. My nursing skills are out-of-date
8. Other *(Specify)*

_____

22a. Are you actively seeking employment as a registered nurse (e.g., making inquiries as to availability of employment, answering advertisements, having interviews)?

1. Yes
2. No *(Skip to 23a)*

→

22b. How many weeks have you been actively seeking a nursing position?

1. Less than a week
2. One week or more

Indicate number of weeks _____

22c. Are you looking for a full-time or part-time nursing position?

1. Full-time
2. Part-time
3. Either

SECTION D: PRIOR NURSING EMPLOYMENT STATUS

23a. Were you employed in nursing one year ago on March **20, 1995?**

1. Yes---+
2. No *(Skip to 24)*

23b. In your principal nursing position at that time, if you were EMPLOYED BY AN INSTITUTION OR AGENCY and were scheduled to work for the normal "full" work week throughout the normal work year, as defined by the agency, circle category "1". If you worked less than the normal **"** work year, circle either "2" or **"3",** whichever is applicable.

If you were SELF-EMPLOYED and were generally available for work throughout the year during what would constitute a normal "full" work week, circle category "1". If you restricted yourself to work only a segment of the work week and/or year, circle either "2" or **"3",** whichever is applicable.

In your nursing position of one year ago did you:

1. Work an entire calendar year or school or academic year on a full-time basis?
2. Work an entire calendar year or school or academic year on a part-time basis?
3. Work only part of the normal work year on either a full- or part-time basis?

23c. What was the location of your principal position on March **20, 1995?** If you were not employed in a fixed location (e.g., you were a private duty nurse), consider the area where you spent most of your working time as your location of employment.

City: _____

County: _____

State (or country if not U.S.A.):

_____

ZIP Code: [ ][ ][ ][ ][ ]

23d. Which one of the following settings best describes the type of employment setting of your principal position in which you worked a year ago on March 20, 1995?

CIRCLE ONLY ONE NUMBER ON PAGE

Hospital (Exclude nursing home units and all off-site units of hospitals but include all on-site clinics and other services of the hospitals)

110 Non-Federal, short-term hospital, except psychiatric (for example, acute care hospital)

120 Non-Federal, long-term hospital, except psychiatric

130 Non-Federal psychiatric hospital

140 Federal Government hospital

150 Other type of hospital *(Specify)*

_____

Nursina Home/Extended Care Facility

210 Nursing home unit in hospital

220 Other nursing home

230 Facility for mentally retarded

240 Other type of extended care facility *(Specify)*

_____

Nursina Education Proaram

310 LPN/LVN program

320 Diploma program (RN)

330 Associate degree program (RN)

340 Baccalaureate and/or higher degree nursing program

350 Other program *(Specify)*

_____

Public Health/Community Health Setting

400 Official State Health Department

405 Official State Mental Health Agency

410 Official City or County Health Department

415 Combination (official/voluntary) nursing service

420 Visiting nurse service (VNS/NA)

425 Other home health agency (non-hospital based)

430 Community mental health facility (including freestanding psychiatric outpatient clinics)

435 Community/neighborhood health center

440 Planned Parenthood/family planning center

445 Day care center

450 Rural health care center

455 Retirement community center

460 Hospice

465 Other *(Specify)* _____

School Health Service

510 Public school system

520 Private or parochial elementary or secondary school

530 College or university

540 Other *(Specify)*

_____

Occupational Health (Employee Health Service)

610 Private Industry

620 Government

630 Other *(Specify)*

_____

Ambulatorv Care Setting

710 Solo practice (physician)

715 Solo practice (nurse)

720 Partnership (physicians)

725 Partnership (nurses)

730 Group practice (physicians)

735 Group practice (nurses)

740 Partnership or group practice (mixed group of professionals)

750 Freestanding clinic (physicians)

755 Freestanding clinic (nurses)

760 Ambulatory surgical center (non-hospital based)

770 Dental practice

780 Health Maintenance Organization (HMO)

790 Other *(Specify)*

_____

Other

910 Central or regional Federal agency

920 State Board of Nursing

930 Nursing or health professional membership association

940 Health planning agency

950 Prison or jail

960 Insurance company (review claims)

970 Other *(Specify)*

_____

23e. **One year ago, on** March **20, 1995,** were you employed **by your current employer?**

1. Yes, in same position as current one (Skip *to* 24)
2. Yes, in different position
3. No

23f. **If answer to above question** is 2 or 3, provide the principal reason for the change (Circle *only one number)*

1. Received a promotion
2. Was laid off
3. Employer shifted positions due to reorganization
4. Was more interested in another position/job
5. Offered better pay/benefits
6. Relocated to a different geographic area
7. Employer reduced the number of registered nurses on staff
8. Better opportunity to do the kind of nursing that I like
9. Employer planned to reduce salaries/benefits
10. Changes in organization/unit made work more stressful
11. Other *(Specify)*

_____

SECTION E: GENERAL INFORMATION

We would like you to answer some additional questions for use in the statistical interpretation of your responses.

24. What is your sex?

1. Female
2. Male

25. What is your year of birth?

26. What is your racial/ethnic background? (Circle *only one number)*

1. Hispanic
2. American Indian or Alaskan Native
3. Asian or Pacific Islander
4. Black, not of Hispanic origin
5. White, not of Hispanic origin

27. What is your current marital **status?**

1. Now married
2. Widowed, divorced, separated
3. Never married

28. **How old are the children who live at home with you? (include all children who live with you 6** months of the year or more) *('Circle only one number)*

1. No children at home
2. All less than 6 years old
3. All 6 years old or older
4. Some less than 6 and some 6 or over

29. **Which** category best describes how much income **you** or, **if** you **are** currently married, you and your **spouse** together anticipate earning during **1996? (**Include your annual employment earnings before **deductions,** your spouse's annual employment **earnings** before deductions, if married; and all **other** income, including alimony, child support, dividends, royalties, interest, social security, retirement, etc.)

1. $15,000 or less
2. 15,001 to 25,000
3. 25,001 to 35,000
4. 35,001 to 50,000
5. 50,001 to 75,000
6. 75,001 to 100,000
7. 100,001 to 150,000
8. More than $150,000

30. Where were you living on March **20, 1996?**

City: _____

County: _____

State (or country, if not U.S.A.)

_____

ZIP Code: | | | | | |

31a. Did you reside in the same city on March 20, 1996, and on March **20, 1995?**

1. Yes → (Skip *to* 32)
2. No

31b. Where were you living on March **20, 1995?**

City: _____

County: _____

State (or country, if not U.S.A.)

_____

ZIP Code: | | | | | |

32. Please indicate below when and where you were issued your first U.S. license (by one of the 50 States or the District of Columbia) to practice as a reaistered nurse.

32a. In what year did you receive your first U.S. license?
(Circle appropriate year)

1996	1993	1990	1987	1984	1981
1995	1992	1989	1986	1983	1980
1994	**1991**	1988	1985	1982	Prior to 1980

32b. What State issued you your first license? _____

For office use

Please note that the following question (Q.33) is very important in order to determine how many nurses in the country your answers may represent. As soon as this determination is calculated and the proper statistical code assigned, your name(s) and registration number(s) will no longer be associated with the other information in this questionnaire.

33. In the space provided below, please provide the following information:

Column A – List all states in which you are now actively licensed.

Column B – List the permanent number of your certificate of registration or license for each state you listed.

Column C – List your complete name as it appears on each license, or circle "same" if it is the same as on questionnaire label.

A. State of Licensure	B. Permanent number on certificate of registration or license	C. Name as it appears on the registration or license, or circle "same" at right of name line if same as on address label on back cover	FOR OFFICE USE D.	FOR OFFICE USE E.
		Last First MI		
1.		same		
2.		same		
3.		same		
4.		same		
5.		same		
6.		same		
7.		same		
8.		same		
9.		same		
10.		same		

AS SOON **AS YOUR ANSWERS HAVE BEEN PROCESSED,** THIS INFORMATION WILL NO LONGER **BE ASSOCIATED WITH ANY OTHER INFORMATION ON THIS QUESTIONNAIRE.**

34. If we should need to contact you regarding the questionnaire, what is the best time to call?

35. What is your telephone number?

						—				

Area Code **Number**

36. Are your name and address, as they appear on the label of this questionnaire, correct?
(Circle only one number)

1. Yes
2. **No** *(Please indicate correct name and address)*

Last	**First**	MI

Box number or street address _____

_____

City _____

State _____ **ZIP Code** _____

37. **Use this space for any special comments you wish to make about any of your responses to the questions or any additional remarks you may have.**

THANK YOU VERY MUCH FOR YOUR HELP.

PLEASE RETURN THE QUESTIONNAIRE IN THE ENCLOSED SELF-ADDRESSED ENVELOPE.

IF YOU HAVE RECEIVED MORE THAN ONE COPY OF THE QUESTIONNAIRE, PLEASE RETURN THE EXTRA COPY(IES) ALONG WITH THE COMPLETED QUESTIONNAIRE.

Research Triangle Institute
ATTN: Ilona Johnson
P.O. Box 12194
Research Triangle Park, NC 27709-2194

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The Registered Nurse Population
March 1996

DEPARTMENT OF
HEALTH & HUMAN SERVICES

Health Resources and Services Administration
Bureau of Health Professions
Division of Nursing
Rockville MD 20857

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